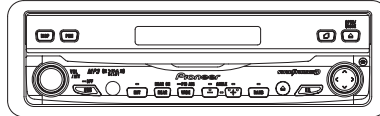


# Service Manual



AVIC-N1/UC

ORDER NO.  
**CRT3221**

DVD MULTIMEDIA AV NAVIGATION SERVER

# AVIC-N1 /UC

DVD AV NAVIGATION HEAD-UNIT

# AVIC-X1 /EW

This service manual should be used together with the following manual(s):

Model No.	Order No.	Mech.Module	Remarks
CX-3016	CRT3056	MS3	DVD Mech. Module:Circuit Description, Mech. Description, Disassembly

**NOTE:**

- Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.
- This product has the unit part number as below.

Unit Part No.	Description
CPN1899	Navigation Unit(AVIC-N1/UC)
CPN1901	Hideaway Unit(AVIC-N1/UC)
CPN1898	Navigation Unit(AVIC-X1/EW)
CPN1900	Hideaway Unit(AVIC-X1/EW)

\*) The unit part numbers listed above are not for the service components.



For details, refer to "Important symbols for good services".



# SAFETY INFORMATION

## UC

### CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

### WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.  
Health & Safety Code Section 25249.6 - Proposition 65

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: [www.eiae.org](http://www.eiae.org).

## EW

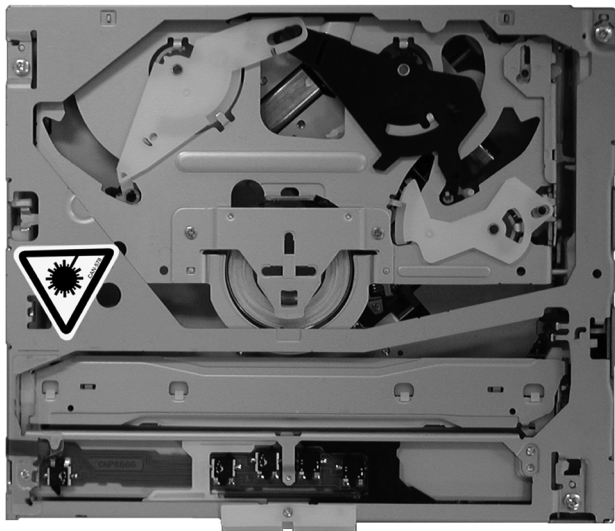
### 1. Safety Precautions for those who Service this Unit.

- Follow the adjustment steps (see pages 192 through 255) in the service manual when servicing this unit. When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.

#### Caution:

- During repair or tests, minimum distance of 13cm from the focus lens must be kept.
- During repair or tests, do not view laser beam for 10 seconds or longer.

### 2. The triangular label is attached to the mechanism unit frame.





**CAUTION**

This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.

Refer all servicing to qualified personnel.

The following caution label appears on your unit.

Location: on the bottom of the unit



En

On the top of the player.

<b>CAUTION</b>	· VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. · AVOID EXPOSURE TO BEAM.
<b>VORSICHT</b>	· SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN!
<b>ADVARSEL</b>	· SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING · UNDGÅ UDSÆTTELSE FOR STRÅLING.
<b>VARNING</b>	· SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA · DEL ÄR ÖPPNAD BETRÄKTA EJ STRÅLEN.
<b>VARO!</b>	· AVATTAESSA ALTISTUT NÄKYVÄ JA NÄKYMÄTTÖMÄLLE · LASERSATEIL YLLE. ÄLÄ KATSO SÄTEESÄN.

VRW1860

**WARNING!**

The AEL (accessible emission level) of the laser power output is less than CLASS 1 but the laser component is capable of emitting radiation exceeding the limit for CLASS 1.

A specially instructed person should do servicing operation of the apparatus.

**Laser diode characteristics**

Wave length:

DVD:640~660nm

CD:770~810nm

Maximum output:2.48mw(Emitting period :9sec.)

DVD:705μw(Emitting period : unlimited)

**Additionla Laser Caution**

Transistors Q1101 and Q1102 in PCB drive the laser diodes for DVD and CD respectively. When Q1101 or Q1102 is shorted between their terminals, the laser diodes for DVD or CD will radiate beam. If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.



## ● Service Precautions

### **DVD MECHANISM MODULE section precaution**

1. Before disassembling the unit, be sure to turn off the power. Unplugging and plugging the connectors during power-on mode may damage the ICs inside the unit.
2. To protect the pickup unit from electrostatic discharge during servicing, take an appropriate treatment (shorting-solder) by referring to "the DISASSEMBLY" on page 262.
3. After replacing the pickup unit, be sure to check the grating. (See p.196.)
4. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.

### **NAVIGATION UNIT section precaution**

1. Inverter for LCD back light becomes a high voltage.
2. When inspecting the touch panel, use something thin with a round tip such as the touch pen. Furthermore, do not apply excessive force to the touch panel.
3. Since this product does not have OSD IC, OSD for adjustment is displayed by using GGF1416 and GGF1463 at the time of monitor adjustment. As you will find lands for 14 pins with 0.8mm pitch at the left top part of the monitor board, directly solder a flexible PCB of GGD1323 for adjustment. As GGD1322 is not used, be careful not to short the terminal.
4. The region code determination at the time of DVD hardware change is made by the destination (UC: Region 1, EW: Region 2) of the car control unit.
5. If you reconnected the Hide-away unit, press the RESET button.



### [ Important symbols for good services ]

In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely. When you find the procedures bearing any of the symbols, be sure to fulfill them:

#### 1. Product safety



You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

#### 2. Adjustments



To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

#### 3. Cleaning



For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

#### 4. Shipping mode and shipping screws



To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

#### 5. Lubricants, glues, and replacement parts



Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount. For replacement parts or tools, the prescribed ones should be used.





# CONTENTS

	SAFETY INFORMATION .....	2
	1. SPECIFICATIONS .....	8
A	2. EXPLODED VIEWS AND PARTS LIST .....	12
	2.1 PACKING (AVIC-N1/UC) .....	12
	2.2 PACKING (AVIC-X1/EW) .....	14
	2.3 NAVIGATION UNIT (1) .....	16
	2.4 NAVIGATION UNIT (2) .....	18
	2.5 NAVIGATION UNIT (3) .....	20
	2.6 HIDEAWAY UNIT AND CORD ASSY .....	22
	2.7 DVD MECHANISM MODULE .....	24
	3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM .....	26
	3.1 BLOCK DIAGRAM .....	26
	3.2 OVERALL CONNECTION DIAGRAM .....	40
B	3.3 CC UNIT (P/S)(GUIDE PAGE) .....	42
	3.4 CC UNIT (SYSCOM, VIDEO, IF)(GUIDE PAGE) .....	48
	3.5 CC UNIT (AUDIO)(GUIDE PAGE) .....	54
	3.6 CC UNIT (CPU, ASIC, SDRAM)(GUIDE PAGE) .....	60
	3.7 CC UNIT (GRAPHIC) .....	66
	3.8 CC UNIT (MAIN, CC CORE I/F) .....	68
	3.9 CC UNIT (ROM, SRAM, BUS-BUFFER) .....	70
	3.10 KEYBOARD PCB .....	72
	3.11 PANEL PCB .....	74
	3.12 DVD CORE UNIT(MS3)(SODC)(GUIDE PAGE) .....	76
	3.13 DVD CORE UNIT(MS3)(CPU)(GUIDE PAGE) .....	82
	3.14 COMPOUND UNIT(A) AND COMPOUND UNIT(B) .....	90
C	3.15 PU UNIT(REFERENCE) .....	91
	3.16 MONITOR PCB AND UPPER PCB(GUIDE PAGE) .....	92
	3.17 INVERTER PCB .....	100
	3.18 RELAY PCB .....	102
	3.19 MOTHER PCB (H/A SYSTEM)(GUIDE PAGE) .....	104
	3.20 MOTHER PCB (SENSOR) .....	110
	3.21 CONNECTOR PCB .....	112
	3.22 MAIN UNIT, SW UNIT AND VOLUME UNIT .....	114
	3.23 GPS UNIT(GUIDE PAGE) .....	116
	4. PCB CONNECTION DIAGRAM .....	122
	4.1 CC UNIT .....	122
	4.2 KEYBOARD PCB .....	126
D	4.3 PANEL PCB .....	127
	4.4 DVD CORE UNIT(MS3) .....	128
	4.5 COMPOUND UNIT(A) AND COMPOUND UNIT(B) .....	132
	4.6 CONNECTOR PCB .....	133
	4.7 MONITOR PCB .....	134
	4.8 UPPER PCB .....	138
	4.9 INVERTER PCB .....	139
	4.10 RELAY PCB .....	140
	4.11 MOTHER PCB .....	142
	4.12 GPS UNIT .....	146
	4.13 MAIN UNIT .....	148
	4.14 SW UNIT AND VOLUME UNIT .....	150
E	5. ELECTRICAL PARTS LIST .....	151
	6. ADJUSTMENT .....	192
	6.1 JIG CONNECTION DIAGRAM .....	192
	6.2 DVD ADJUSTMENT .....	193
	6.3 CC UNIT ADJUSTMENT .....	213
	6.4 MOTHER PCB ADJUSTMENT .....	215
	6.5 INVERTER PCB ADJUSTMENT .....	217
	6.6 MONITOR PCB ADJUSTMENT .....	218
	6.7 TEST MODE .....	227
	6.8 USING THE TEST DISC .....	249
	7. GENERAL INFORMATION .....	262
	7.1 DIAGNOSIS .....	262
F	7.1.1 DISASSEMBLY .....	262
	7.1.2 PCB LOCATIONS .....	270
	7.1.3 CONNECTOR FUNCTION DESCRIPTION .....	271
	7.2 PARTS .....	273



7.2.1 IC .....	273
7.2.2 DISPLAY .....	292
7.3 EXPLANATION .....	293
7.3.1 MECHANISM DESCRIPTIONS .....	293
7.3.2 OPERATIONAL FLOW CHART .....	299
7.4 CLEANING .....	303
8. OPERATIONS .....	304



# 1. SPECIFICATIONS

## ● AVIC-N1/UC

### General

Rated power source .....	14.4 V DC (10.8 - 15.1 V allowable)
Grounding system .....	Negative type
Max. current consumption .....	10.0 A
Backup current .....	6.5 mA or less

### Display unit:

#### Dimensions (W × H × D):

##### DIN

Chassis .....	178 × 50 × 160 mm (7 × 2 × 6-1/4 in.)
Nose .....	188 × 58 × 34 mm (7-3/8 × 2-1/4 × 1-3/8 in.)

##### D

Chassis .....	178 × 50 × 165 mm (7 × 2 × 6-1/2 in.)
Nose .....	170 × 46 × 29 mm (6-3/4 × 1-3/4 × 1-1/4 in.)

Weight ..... 2.5 kg (5.5 lbs)

### Hideaway unit:

#### Dimensions (W × H × D)

.....	180 × 30 × 140 mm (5-7/8 × 1-1/8 × 3-7/8 in.)
-------	--

Weight ..... 0.7 kg (1.5 lbs)

### Navigation

#### GPS Receiver:

System .....	L1, C/Acode GPS SPS (Standard Positioning Service)
Reception system .....	8-channel multi-channel reception system
Reception frequency ...	1,575.42 MHz
Sensitivity .....	-130 dbm
Position update frequency .....	Approx. once per second

#### GPS antenna:

Antenna .....	Micro strip flat antenna/ right-handed helical polari- zation
Antenna cable .....	5.0 m (16 ft. 5 in.)
Dimensions (W × H × D) .....	34 × 13 × 36 mm (1-3/8 × 1/2 × 1-3/8 in.)
Weight .....	105 g (0.23 lbs)

### Display

Screen size/aspect ratio .....	6.5 inch wide/16:9 (effective display area: 144 × 76 mm)
Pixels .....	336,960 (1,440 × 234)
Type .....	TFT active matrix, transmis- sive type
Color system .....	NTSC
Operating temperature range .....	-14 - +122 °F
Storage temperature range .....	-4 - +176 °F
Angle adjustment .....	50 - 110° (initial settings: 110°)

### Audio

Continuous power output is 22 W per channel minimum into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.

Maximum power output ..... 50 W × 4  
50 W × 2 ch/4 Ω + 70 W × 1  
ch/2 Ω (for subwoofer)

Load impedance ..... 4 Ω (4 - 8 Ω [2 Ω for 1 ch]  
allowable)

#### Preout max output level/output impedance

..... 1.0 V/100 ohm

#### Equalizer (3-Band Parametric Equalizer):

##### Low

Frequency .....	40/80/100/160 Hz
Q Factor .....	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain .....	± 12dB

##### Mid

Frequency .....	200/500/1k/2k Hz
Q Factor .....	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain .....	± 12dB

##### High

Frequency .....	3.15k/8k/10k/12.5k Hz
Q Factor .....	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain .....	± 12dB

#### Loudness contour

Low .....	+3.5 dB (100 Hz), +3 dB (10 kHz)
Mid .....	+10 dB (100 Hz), +6.5 dB (10 kHz)
High .....	+11 dB (100 Hz), +11 dB (10 kHz) (volume: -30 dB)

#### Tone controls:

##### Bass

Frequency .....	40/63/100/160 Hz
Gain .....	± 12dB

##### Treble

Frequency .....	2.5k/4k/6.3k/10k Hz
Gain .....	± 12dB

#### HPF:

Frequency .....	50/80/125 Hz
Slope .....	-12 dB/oct

#### Subwoofer:

Frequency .....	50/80/125 Hz
Slope .....	-18 dB/oct
Gain .....	± 12dB
Phase .....	Normal/Reverse



## DVD Drive

System .....	DVD video, Compact disc audio, MP3 system
Usable discs .....	DVD video, Compact disc, MP3
Region number .....	1
Signal format:	
Sampling frequency ....	44.1/48/96 kHz
Number of quantization bits .....	16/20/24; linear
Frequency response .....	5 – 44,000 Hz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio .....	97 dB (1 kHz) (IHF-A network) (CD: 96 dB (1 kHz) (IHF-A network))
Dynamic range .....	95 dB (1 kHz) (CD: 94 dB (1 kHz))
Distortion .....	0.008 % (1 kHz)
Output level:	
Video .....	1.0 Vp-p/75 $\Omega$ ( $\pm 0.2$ V)
Audio .....	1.0 V (1 kHz, 0 dB)
Number of channels .....	2 (stereo)
MP3 decoding format .....	MPEG-1 & 2 Audio Layer 3

## FM tuner

Frequency range .....	87.9 – 107.9 MHz
Usable sensitivity .....	8 dBf (0.7 $\mu$ V/75 $\Omega$ , mono, S/N: 30 dB)
50 dB quieting sensitivity ....	10 dBf (0.9 $\mu$ V/75 $\Omega$ , mono)
Signal-to-noise ratio .....	75 dB (IHF-A network)
Distortion .....	0.3 % (at 65 dBf, 1 kHz, stereo) 0.1 % (at 65 dBf, 1 kHz, mono)
Frequency response .....	30 – 15,000 Hz ( $\pm 3$ dB)
Stereo separation .....	45 dB (at 65 dBf, 1 kHz)
Selectivity .....	80 dB ( $\pm 200$ kHz)
Three-signal intermodulation (desired signal level) .....	30 dBf (two undesired signal level: 100 dBf)

## AM tuner

Frequency range .....	530 – 1,710 kHz (10 kHz)
Usable sensitivity .....	18 $\mu$ V (S/N: 20 dB)
Signal-to-noise ratio .....	65 dB (IHF-A network)

## Note:

- Specifications and the design are subject to possible modifications without notice due to improvements.



## ● AVIC-X1/EW

### General

Rated power source ..... 14.4 V DC  
(allowable voltage range:  
12.0 – 14.4 V DC)

Earthing system..... Negative type  
Max. current consumption  
..... 10.0 A

Backup current ..... 6.5 mA or less

Display unit:

Dimensions (W × H × D):

DIN

Chassis..... 178 × 50 × 160 mm

Nose..... 188 × 58 × 34 mm

D

Chassis..... 178 × 50 × 165 mm

Nose..... 170 × 46 × 29 mm

Weight ..... 2.5 kg

Hideaway unit:

Dimensions (W × H × D)

..... 180 × 30 × 140 mm

Weight ..... 0.7 kg

### Navigation

GPS Receiver:

System..... L1, C/Acode GPS

SPS (Standard Positioning Service)

Reception system..... 8-channel multi-channel  
reception system

Reception frequency ... 1,575.42 MHz

Sensitivity ..... –130 dbm

Position update frequency

..... Approx. once per second

GPS aerial:

Aerial ..... Micro strip flat aerial/right-  
handed helical polarization

Aerial cable ..... 5.0 m

Dimensions (W × H × D)

..... 34 × 13 × 36 mm

Weight ..... 105 g

### Display

Screen size/aspect ratio ..... 6.5 inch wide/16:9  
(effective display area: 144 ×  
76 mm)

Pixels ..... 336,960 (1,440 × 234)

Type..... TFT active matrix, transmis-  
sive type

Colour system..... NTSC/PAL compatible

Operating temperature range

..... –10 – +50 °C

Storage temperature range

..... –20 – +80 °C

Angle adjustment..... 50 – 110°  
(initial settings: 110°)

### Audio

Maximum power output ..... 50 W × 4  
50 W × 2 ch/4 Ω + 70 W × 1  
ch/2 Ω (for subwoofer)

Continuous power output... 27 W × 4 (DIN 45324,  
+B=14.4 V)

Load impedance..... 4 Ω (4 – 8 Ω [2 Ω for 1 ch]  
allowable)

Preout max output level/output impedance

..... 1.0 V/100 ohm

Equalizer (3-Band Parametric Equalizer):

Low

Frequency..... 40/80/100/160 Hz

Q Factor..... 0.35/0.59/0.95/1.15 (+6 dB  
when boosted)

Gain..... ±12dB

Mid

Frequency..... 200/500/1k/2k Hz

Q Factor..... 0.35/0.59/0.95/1.15 (+6 dB  
when boosted)

Gain..... ±12dB

High

Frequency..... 3.15k/8k/10k/12.5k Hz

Q Factor..... 0.35/0.59/0.95/1.15 (+6 dB  
when boosted)

Gain..... ±12dB

Loudness contour

Low..... +3.5 dB (100 Hz), +3 dB (10  
kHz)

Mid..... +10 dB (100 Hz), +6.5 dB  
(10 kHz)

High ..... +11 dB (100 Hz), +11 dB  
(10 kHz)  
(volume: –30 dB)

Tone controls:

Bass

Frequency..... 40/63/100/160 Hz

Gain..... ±12dB

Treble

Frequency..... 2.5k/4k/6.3k/10k Hz

Gain..... ±12dB

HPF:

Frequency..... 50/80/125 Hz

Slope..... –12 dB/oct

Subwoofer:

Frequency..... 50/80/125 Hz

Slope..... –18 dB/oct

Gain..... ±12dB

Phase..... Normal/Reverse

### DVD Drive

System..... DVD video, Compact disc  
audio, MP3 system

Usable discs..... DVD video, Compact disc,  
MP3

Region number..... 2

Signal format:

Sampling frequency .... 44.1/48/96 kHz

Number of quantization bits

..... 16/20/24; linear

Frequency response..... 5 – 44,000 Hz (with DVD, at  
sampling frequency 96 kHz)

Signal-to-noise ratio ..... 97 dB (1 kHz) (IEC-A net-  
work)



	(CD: 96 dB (1 kHz) (IEC-A network))
Dynamic range .....	95 dB (1 kHz) (CD: 94 dB (1 kHz))
Distortion .....	0.008 % (1 kHz)
Output level:	
Video .....	1.0 V <sub>p-p</sub> /75 $\Omega$ ( $\pm 0.2$ V)
Audio .....	1.0 V (1 kHz, 0 dB)
Number of channels .....	2 (stereo)
MP3 decoding format .....	MPEG-1 & 2 Audio Layer 3

#### FM tuner

Frequency range .....	87.5 – 108.0 MHz
Usable sensitivity .....	8 dBf (0.7 $\mu$ V/75 $\Omega$ , mono, S/N: 30 dB)
50 dB quieting sensitivity .....	10 dBf (0.9 $\mu$ V/75 $\Omega$ , mono)
Signal-to-noise ratio .....	75 dB (IEC-A network)
Distortion .....	0.3 % (at 65 dBf, 1 kHz, stereo) 0.1 % (at 65 dBf, 1 kHz, mono)
Frequency response .....	30 – 15,000 Hz ( $\pm 3$ dB)
Stereo separation .....	45 dB (at 65 dBf, 1 kHz)
Selectivity .....	80 dB ( $\pm 200$ kHz)

#### MW tuner

Frequency range .....	531 – 1,602 kHz (9 kHz)
Usable sensitivity .....	18 $\mu$ V (S/N: 20 dB)
Signal-to-noise ratio .....	65 dB (IEC-A network)

#### LW tuner

Frequency range .....	153 – 281 kHz
Usable sensitivity .....	30 $\mu$ V (S/N: 20 dB)
Signal-to-noise ratio .....	65 dB (IEC-A network)

#### Note:

- Specifications and the design are subject to possible modifications without notice due to improvements.



## 2. EXPLODED VIEWS AND PARTS LIST

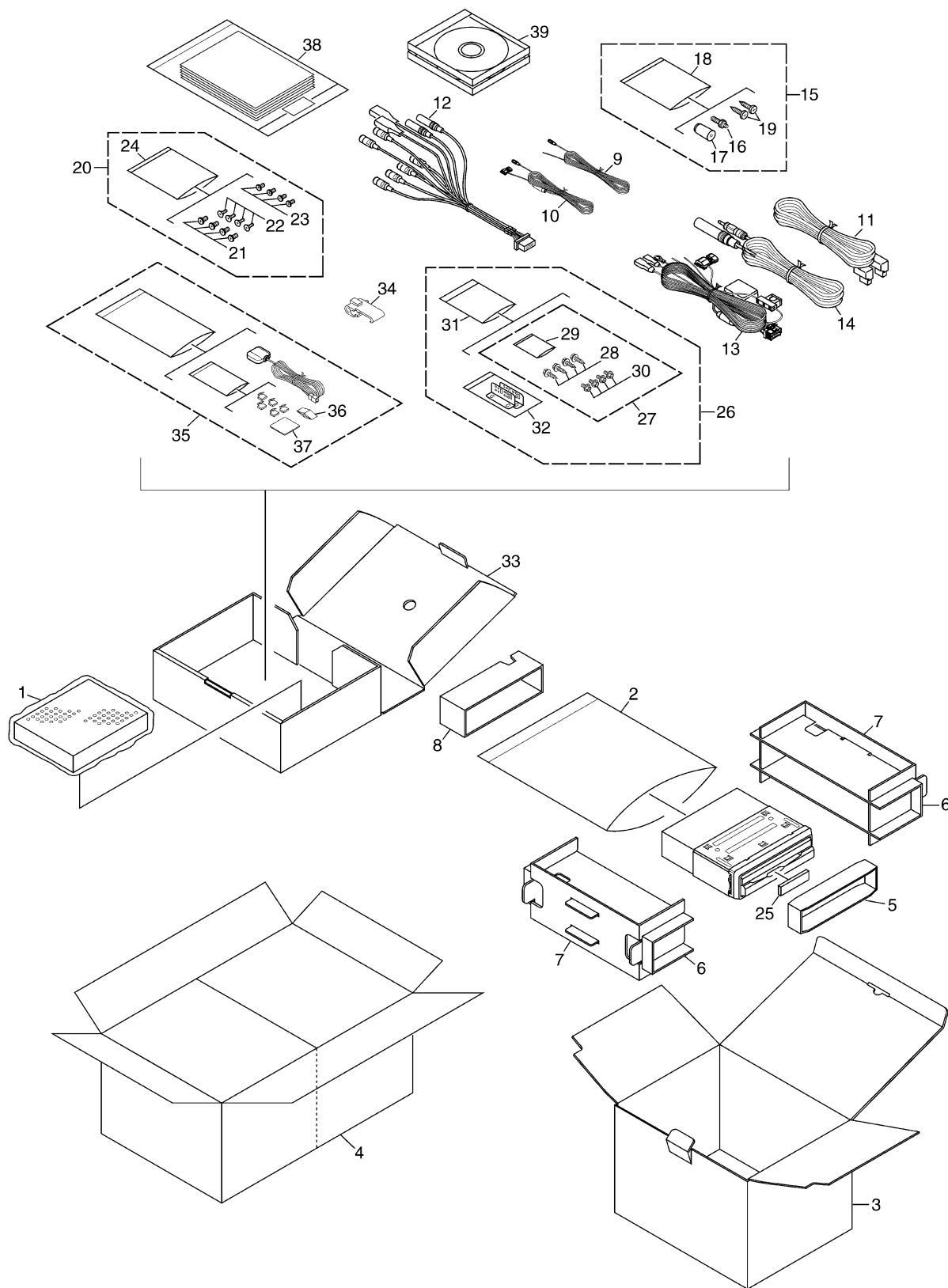
NOTES : • Parts marked by " \* " are generally unavailable because they are not in our Master Spare Parts List.

• Screw adjacent to ▽ mark on the product are used for disassembly.

• For the applying amount of lubricants or glue, follow the instructions in this manual.

(In the case of no amount instructions, apply as you think it appropriate.)

### 2.1 PACKING (AVIC-N1/UC)





## PACKING (AVIC-N1/UC) SECTION PARTS LIST

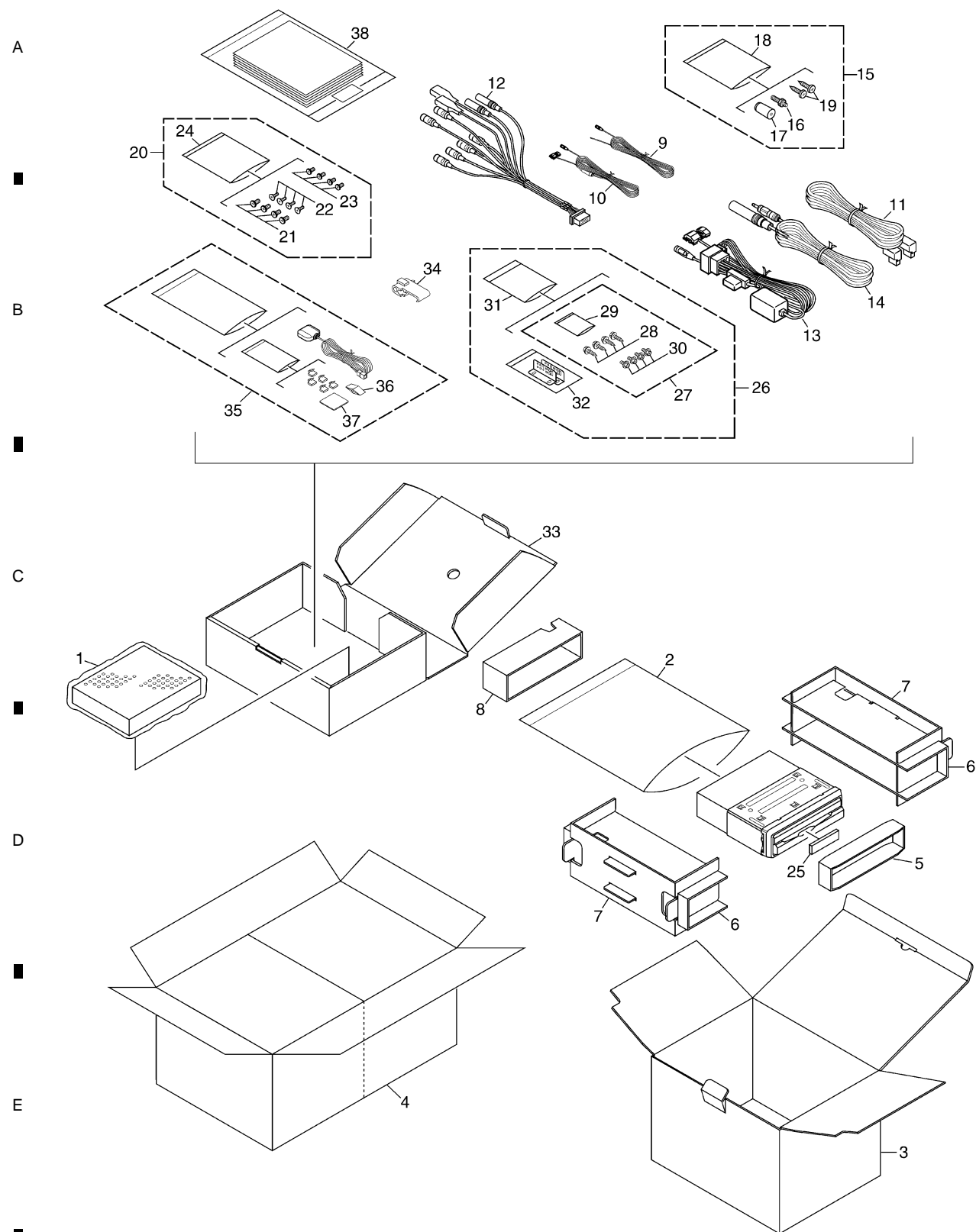
Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Air Cushioned Bag	CEG1007	* 31	Polyethylene Bag	CEG1163
2	Polyethylene Bag	CEG1173	32	Angle Assy	CXC1079
3	Carton	CHG5201	33	Sub Carton	CHG5199
4	Contain Box	CHL5201	34	Connector	CKX1049
5	Protector	CHP2387	35	GPS Antenna Assy	CXB9354
6	Protector	CHP2445	36	Water Proof Pad	CZN5442
7	Protector	CHP2446	37	Sheet	CZN5453
8	Protector	CHP2555	38-1	Polyethylene Bag	CEG1116
9	Cord	CDE5044	38-2	Owner's Manual	CRB1915
10	Cord	CDE6825	38-3	Owner's Manual	CRB1916
11	Cord Assy	CDE7398	38-4	Owner's Manual/PA/FRE	CRB1917
12	Cord Assy	CDE7399	38-5	Owner's Manual/PA/FRE	CRB1918
13	Cord Assy	CDE7487	38-6	Installation Manual	CRD3837
14	Antenna Cable	CDH1325	38-7	Caution Card	CRP1310
15	Accessory Assy	CEA3685	* 38-8	Card	ARY1048
16	Screw	CBA1650	38-9	Cleaning Cloth Assy	CEA3952
17	Bush	CNV1917	* 38-10	Registration Card	CRY1229
* 18	Polyethylene Bag	E36-615	39	DVD-ROM	CPJ1158
19	Screw	JGZ20P070FTC			
20	Screw Assy	CEA3686			
21	Screw	BMZ50P060FTC			
22	Screw(M4x6)	CBA1468			
23	Screw	CMZ50P060FTC			
* 24	Polyethylene Sheet	CNM4338			
25	Spacer	CNM9149			
26	Accessory Assy	CEA3996			
27	Screw Assy	CEA4396			
28	Screw	CBA1795			
* 29	Polyethylene Sheet	CNM4338			
30	Screw	HMF40P080FTC			

### ● Owner's Manual, Installation Manual

Part No.	Language
CRB1915, CRB1916	English
CRB1917, CRB1918	French
CRD3837	English, French



## 2.2 PACKING (AVIC-X1/EW)





## PACKING (AVIC-X1/EW) SECTION PARTS LIST

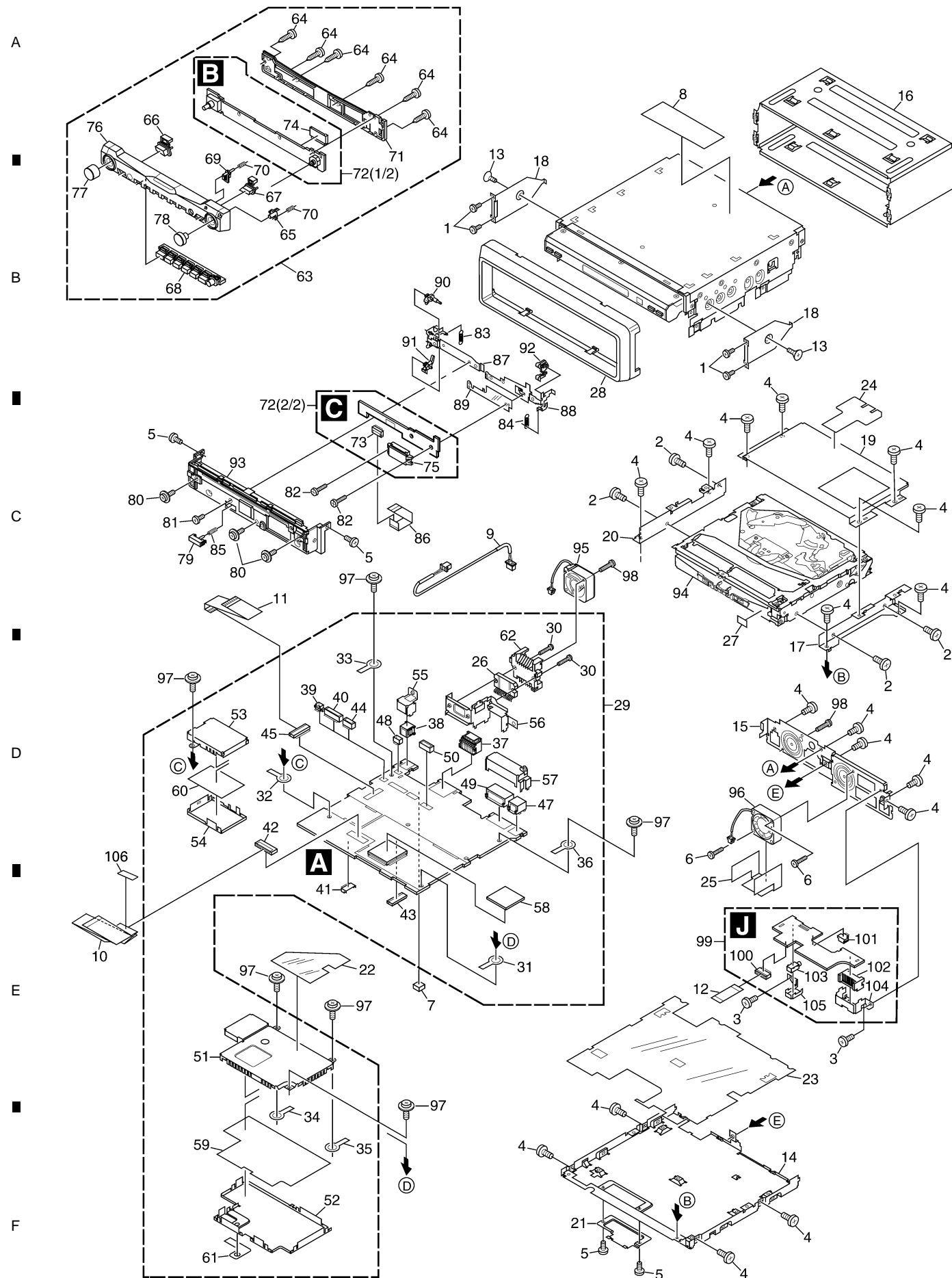
Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Air Cushioned Bag	CEG1007	* 31	Polyethylene Bag	CEG1163
2	Polyethylene Bag	CEG-162	32	Angle Assy	CXC1079
3	Carton	CHG5200	33	Sub Carton	CHG5199
4	Contain Box	CHL5200	34	Connector	CKX1049
5	Protector	CHP2387	35	GPS Antenna Assy	CXB9354
6	Protector	CHP2445	36	Water Proof Pad	CZN5442
7	Protector	CHP2446	37	Sheet	CZN5453
8	Protector	CHP2555	38-1	Polyethylene Bag	CEG1116
9	Cord	CDE5044	38-2	Owner's Manual/PEE/ENG	CRB1903
10	Cord	CDE6825	38-3	Owner's Manual/PEE/ENG	CRB1904
11	Cord Assy	CDE7398	38-4	Owner's Manual/PEE/SPE	CRB1905
12	Cord Assy	CDE7399	38-5	Owner's Manual/PEE/SPE	CRB1906
13	Cord Assy	CDE7486	38-6	Owner's Manual/PEE/GER	CRB1907
14	Antenna Cable	CDH1325	38-7	Owner's Manual/PEE/GER	CRB1908
15	Accessory Assy	CEA3685	38-8	Owner's Manual/PEE/FRE	CRB1909
16	Screw	CBA1650	38-9	Owner's Manual/PEE/FRE	CRB1910
17	Bush	CNV1917	38-10	Owner's Manual/PEE/ITA	CRB1911
* 18	Polyethylene Bag	E36-615	38-11	Owner's Manual/PEE/ITA	CRB1912
19	Screw	JGZ20P070FTC	38-12	Owner's Manual/PEE/DUT	CRB1913
20	Screw Assy	CEA3686	38-13	Owner's Manual/PEE/DUT	CRB1914
21	Screw	BMZ50P060FTC	38-14	Installation Manual	CRD3836
22	Screw(M4x6)	CBA1468	* 38-15	Passport	CRY1013
23	Screw	CMZ50P060FTC	* 38-16	Warranty Card	CRY1157
* 24	Polyethylene Sheet	CNM4338	38-17	Cleaning Cloth Assy	CEA3952
25	Spacer	CNM9149	38-18	Sheet	CNM8603
26	Accessory Assy	CEA3996	* 38-19	Lock Tie	CNV-754
27	Screw Assy	CEA4396			
28	Screw	CBA1795			
* 29	Polyethylene Sheet	CNM4338			
30	Screw	HMF40P080FTC			

### ● Owner's Manual, Installation Manual

Part No.	Language
CRB1903, CRB1904	English
CRB1905, CRB1906	Spanish
CRB1907, CRB1908	German
CRB1909, CRB1910	French
CRB1911, CRB1912	Italian
CRB1913, CRB1914	Dutch
CRD3836	English, Spanish, German, French, Italian, Dutch



## 2.3 NAVIGATION UNIT (1)





# NAVIGATION UNIT (1) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	Screw	BMZ20P030FZK	57	Holder	CND1955	A
2	Screw	BMZ20P035FTC	58	Sheet	CNM7902	
3	Screw	BMZ26P025FTC	59	Insulator	CNM8572	
4	Screw	BMZ26P040FTC				
5	Screw(M2x2.5)	CBA1615	60	Insulator	CNM8573	
			61	Insulator	CNM8856	
6	Screw(M2.6x12)	CBA1620	62	Heat Sink	CNR1739	
7	Spacer	CNM9200	63	Detach Grille Assy(UC model)	GXC1006	
8	Label(EW model)	VRW1860		Detach Grille Assy(EW model)	GXC1005	
9	Cord Assy	CDE7401				
10	FFC	CDE7402	64	Screw	BPZ20P080FZK	
			65	Button(DETACH)	CAC8431	
11	FFC	CDE7403	66	Button(SRC)	CAC8432	
12	FFC	CDE7727	67	Button(EQ)	CAC8433	B
13	Screw	CMZ50P060FTC	68	Button	CAC8434	
14	Case	CNB2929				
15	Panel	CNB3048	69	Button(RESET)	CAC8503	
			70	Spring	CBH2680	
16	Holder	CNC9510	71	Cover	CNS7759	
17	Bracket	CND1438	72	Keyboard Unit(UC model)	CWM9133	
18	Bracket	CND1482		Keyboard Unit(EW model)	CWM9132	
19	Bracket	CND1603				
20	Bracket	CND1947	73	Connector(CN5901)	CKS3965	
			74	Connector(CN5501)	CKS4657	
21	Holder	CND1948	75	Connector(CN5902)	CKS4658	
22	Insulator	CNM8043	76	Grille Unit(UC model)	CXC2562	C
23	Insulator	CNM8571		Grille Unit(EW model)	CXC2561	
24	Insulator	CNM8715				
25	Cover	CNM8874	77	Knob Unit(VOLUME)	CXC3733	
			78	Knob Unit(SELECT)	CXC3734	
26	IC(IC2405)	PAL007A	79	Button	CAC7953	
27	Spacer	CNM9246	80	Screw(M2x4)	CBA1734	
28	Panel	CNS7797	81	Screw(M2.6x2.5)	CBA1777	
29	CC Unit(UC model)	CWM9129				
	CC Unit(EW model)	CWM9128	82	Screw(M2x4)	CBA1778	
			83	Spring	CBH2681	
30	Screw	BMZ26P160FTC	84	Spring	CBH2682	
31	Terminal(CN100)	CKF1064	85	Spring	CBH2790	
32	Terminal(CN604)	CKF1064	86	FFC	CDE7405	D
33	Terminal(CN605)	CKF1064				
34	Terminal(CN614)	CKF1064	87	Holder	CND1840	
			88	Holder	CND1841	
35	Terminal(CN615)	CKF1064	89	Insulator	CNM8510	
36	Terminal(CN2601)	CKF1064	90	Arm	CNV7567	
37	Connector(CN802)	CKM1332	91	Arm	CNV7568	
38	Connector(CN2552)	CKS1940				
39	Connector(CN971)	CKS3124	92	Arm	CNV7569	
			93	Panel Unit	CXC2693	
40	Connector(CN608)	CKS3751	94	DVD Mechanism Module(MS3)	CXK6325	
41	Connector(CN2701)	CKS3810	95	Fan Motor	CXM1284	
42	Connector(CN2)	CKS4052	96	Fan Motor	CXM1289	
43	Connector(CN305)	CKS4052				
44	Connector(CN609)	CKS4068	97	Screw	ISS26P050FTC	E
			98	Screw	PMZ20P160FTC	
45	Connector(CN607)	CKS4132	99	Mother Tuner Unit(UC model)	CWM9137	
46	•••••			Mother Tuner Unit(EW model)	CWM9136	
47	Connector(CN692)	CKS4473	100	Connector(CN2801)	CKS4871	
48	Connector(CN2551)	CKS4571				
49	Connector(CN731)	CKS4646	101	Connector(CN2802)	CKS3124	
			102	Connector(CN2803)	CKM1365	
50	Connector(CN691)	CKS4814	103	Connector(CN2804)	CKS4752	
51	Shield	CND1949	104	Holder	CND1956	
52	Shield	CND1950	105	Holder	CND1957	
53	Shield	CND1951				
54	Shield	CND1952	106	Insulator	CNM9236	F
55	Holder	CND1953				
56	Holder	CND1954				



## 2.4 NAVIGATION UNIT (2)

A

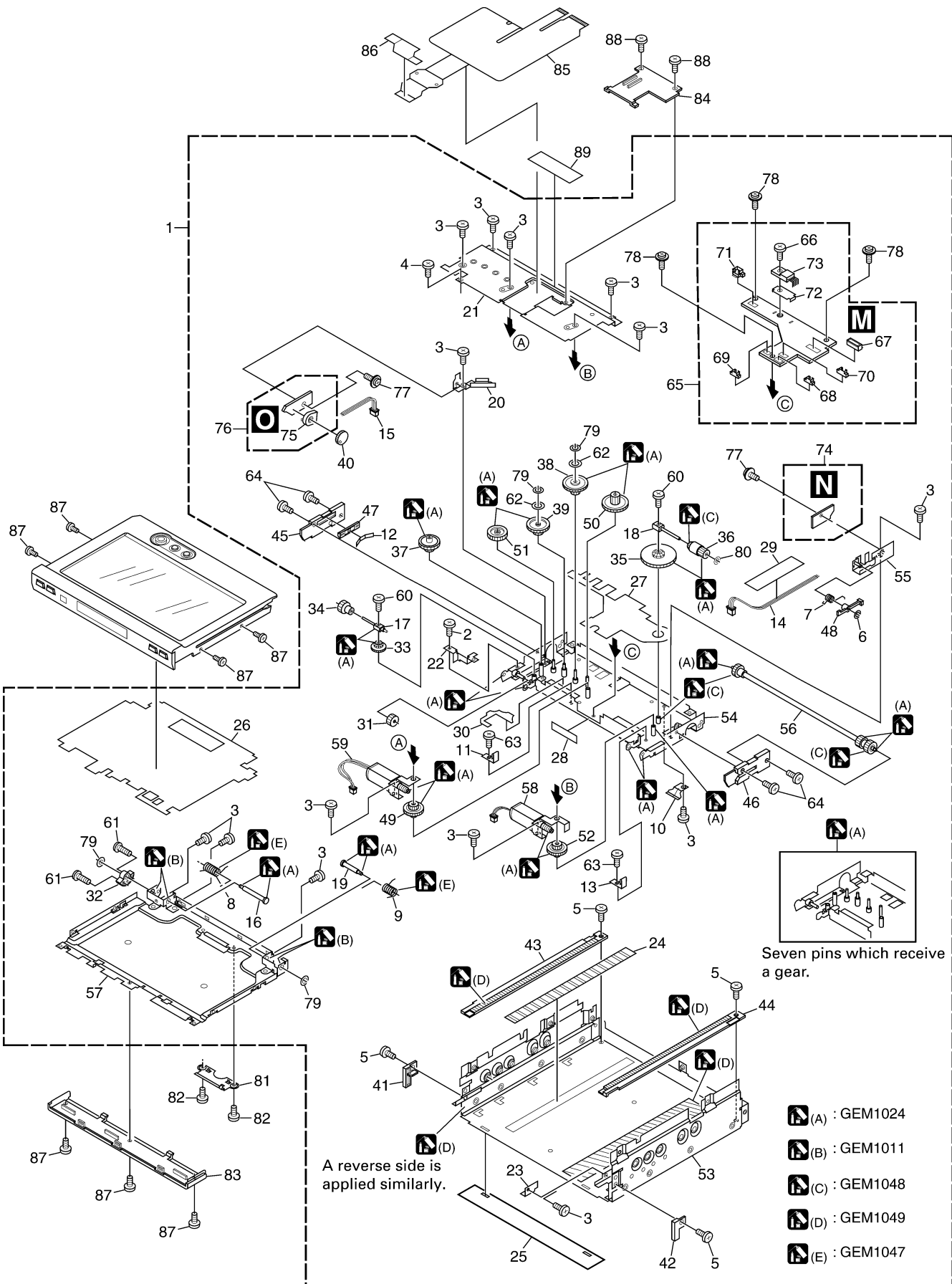
B

C

D

E

F





# NAVIGATION UNIT (2) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Drive Unit	CXB9508	51	Gear	CNV7524
2	Screw(M2x3)	CBA1082	52	Gear	CNV7529
3	Screw(M2x2.5)	CBA1250	53	Chassis Unit	CXB9509
4	Screw(M2x4)	CBA1277	54	Frame Unit	CXB9511
5	Screw(M2x1.5)	CBA1615	55	Holder Unit	CXB9512
6	Washer	CBF1038	56	Shaft Unit	CXB9513
7	Spring	CBH2645	57	Holder Unit	CXB9514
8	Spring	CBH2646	58	Motor Unit(M3001)(Position)	CXB9515
9	Spring	CBH2647	59	Motor Unit(M3002)(Angle)	CXB9516
10	Spring	CBL1585	60	Screw	CZB3082
11	Spring	CBL1586	61	Screw	CZB3083
12	Spring	CBL1587	62	Washer	CZB3084
13	Spring	CBL1642	63	Screw(M2x1.8)	CZB3085
14	Cord Assy	CDE7047	64	Screw(M2x4)	CZB3088
15	Cord Assy	CDE7213	65	Main Unit	CZW3087
16	Shaft	CLA4270	66	Screw	BMZ26P050FTC
17	Shaft	CLA4305	67	Connector(CN3801)	CKS4068
18	Shaft	CLA4306	68	Connector(CN3802)	CKS4732
19	Shaft	CLA4309	69	Connector(CN3803)	CKS4732
20	Bracket	CND1221	70	Connector(CN3807)	CKS4733
21	Case	CND1229	71	Connector(CN3809)	CKS4733
22	Holder	CND1318	72	Heat Sink	CND1228
23	Holder	CND1449	73	IC(IC3801)	BA00AST
24	Sheet	CNM8522	74	SW Unit	CZW3088
25	Sheet	CNM8037	75	Volume(VR3841)	CCW1025
26	Insulator	CNM8048	76	Volume Unit	CZW3089
27	Insulator	CNM8158	77	Screw	IMS20P020FTC
28	Sheet	CNM8159	78	Screw	IMS20P030FZK
29	Tape	CNM8160	79	Washer	YE15S
30	Insulator	CNM8294	80	Washer	CZB3089
31	Gear	CNR1664	81	Holder	CND1314
32	Gear	CNR1665	82	Screw	JFZ20P022FNI
33	Gear	CNR1677	83	Cover	CNS7760
34	Gear	CNR1678	84	Holder	CNV7446
35	Gear	CNR1679	85	Flexible PCB	CNP7621
36	Gear	CNR1680	86	Shield	CNM8969
37	Gear	CNR1688	87	Screw(M2x2)	CBA1753
38	Gear	CNR1708	88	Screw(M2x3)	CBA1797
39	Gear	CNR1709	89	Sheet	CNM9201
40	Gear	CNV7383			
41	Holder	CNV7384			
42	Holder	CNV7385			
43	Rack	CNV7386			
44	Rack	CNV7387			
45	Slider	CNV7388			
46	Slider	CNV7389			
47	Holder	CNV7390			
48	Arm	CNV7391			
49	Gear	CNV7522			
50	Gear	CNV7523			



2.5 NAVIGATION UNIT (3)

A

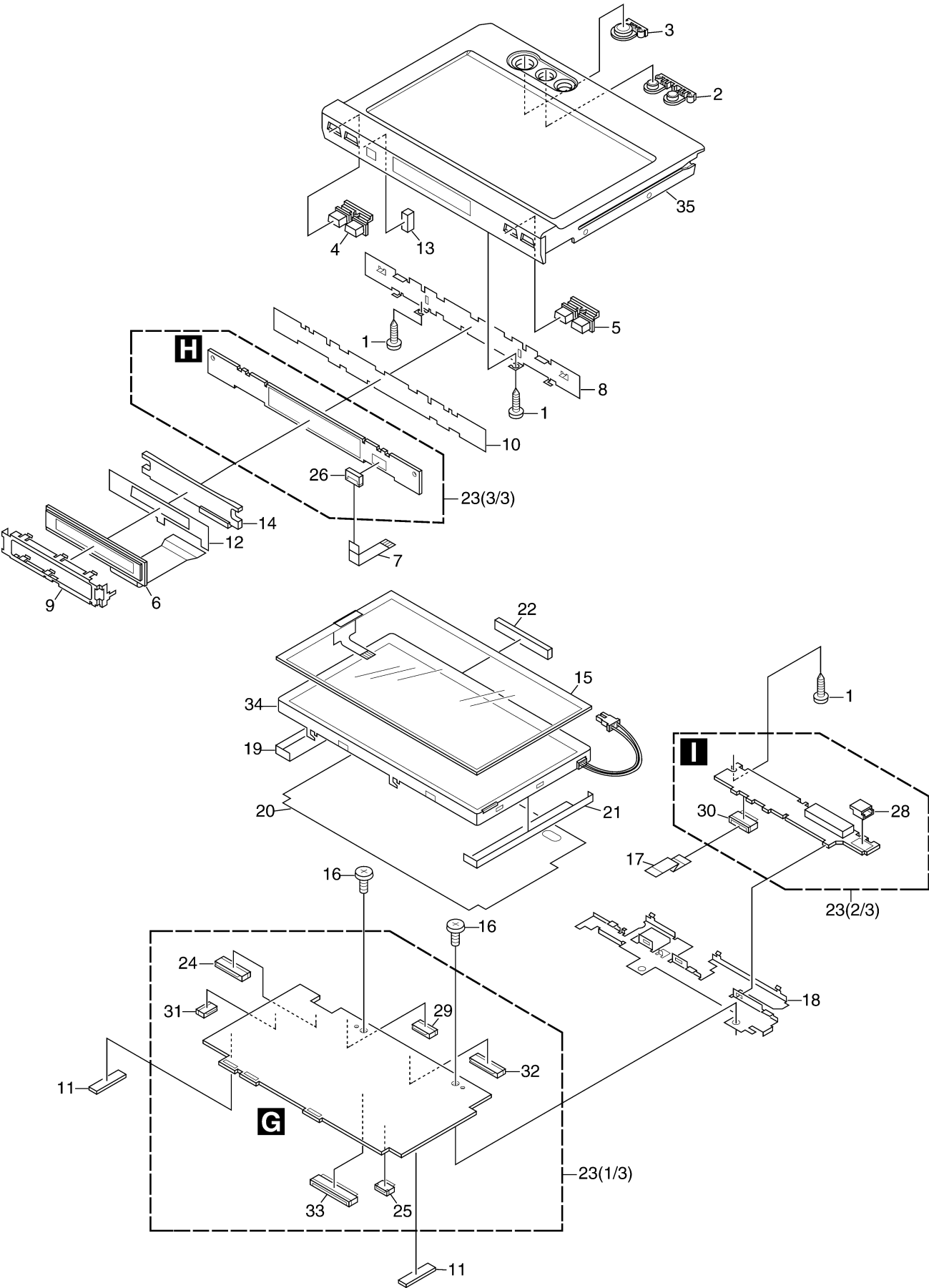
B

C

D

E

F





### NAVIGATION UNIT (3) SECTION PARTS LIST

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	Screw	BPZ20P060FTC
2	Button(NAVI/AV)	CAC8427
3	Button(NAVI MENU)	CAC8428
4	Button(OPEN/CLOSE)	CAC8430
5	Button(DISP,PGM)(UC model)	CAC8504
	Button(DISP,TA)(EW model)	CAC8429
6	LCD	CAW1828
7	FFC	CDE7488
8	Holder	CND2010
9	Holder	CND2419
10	Insulator	CNM8616
11	Spacer	CNM8707
12	Sheet	CNM8858
13	Cushion	CNM9148
14	Lighting Conductor	CNV7564
15	Touch Panel	CSX1073
16	Screw(M2x2.5)	CBA1615
17	FFC	CDE7196
18	Holder	CND2418
19	Sheet	CNM7784
20	Insulator	CNM8031
21	Sheet	CNM8265
22	Conductor	CNM8857
23	Monitor Unit(UC model)	CWM9135
	Monitor Unit(EW model)	CWM9134
24	Connector(CN4801)	CKS3991
25	Connector(CN4005)	CKS4054
26	Connector(CN4301)	CKS4054
27	•••••	
28	Connector(CN5002)	CKS4428
29	Connector(CN4003)	CKS4595
30	Connector(CN5001)	CKS4595
31	Connector(CN4681)	CKS4675
32	Connector(CN4002)	CKS4793
33	Connector(CN4701)	CKS4818
34	LCD Panel	CWX3056
35	Grille Unit(UC model)	CXC3730
	Grille Unit(EW model)	CXC3729



## 2.6 HIDEAWAY UNIT AND CORD ASSY

A

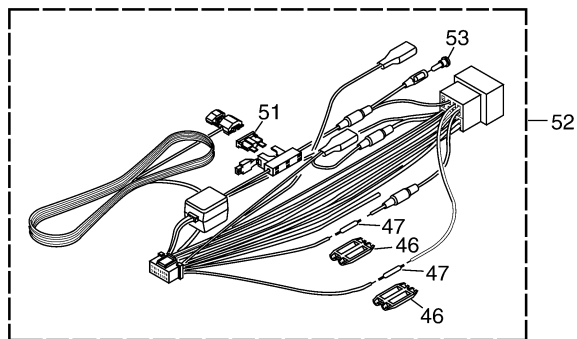
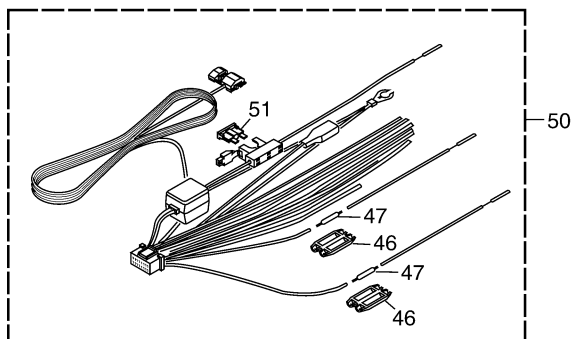
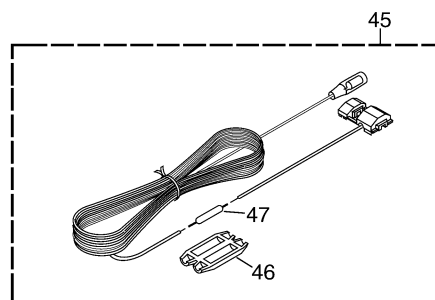
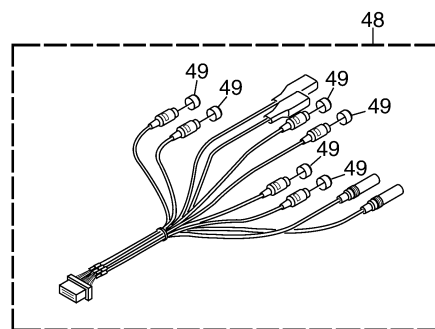
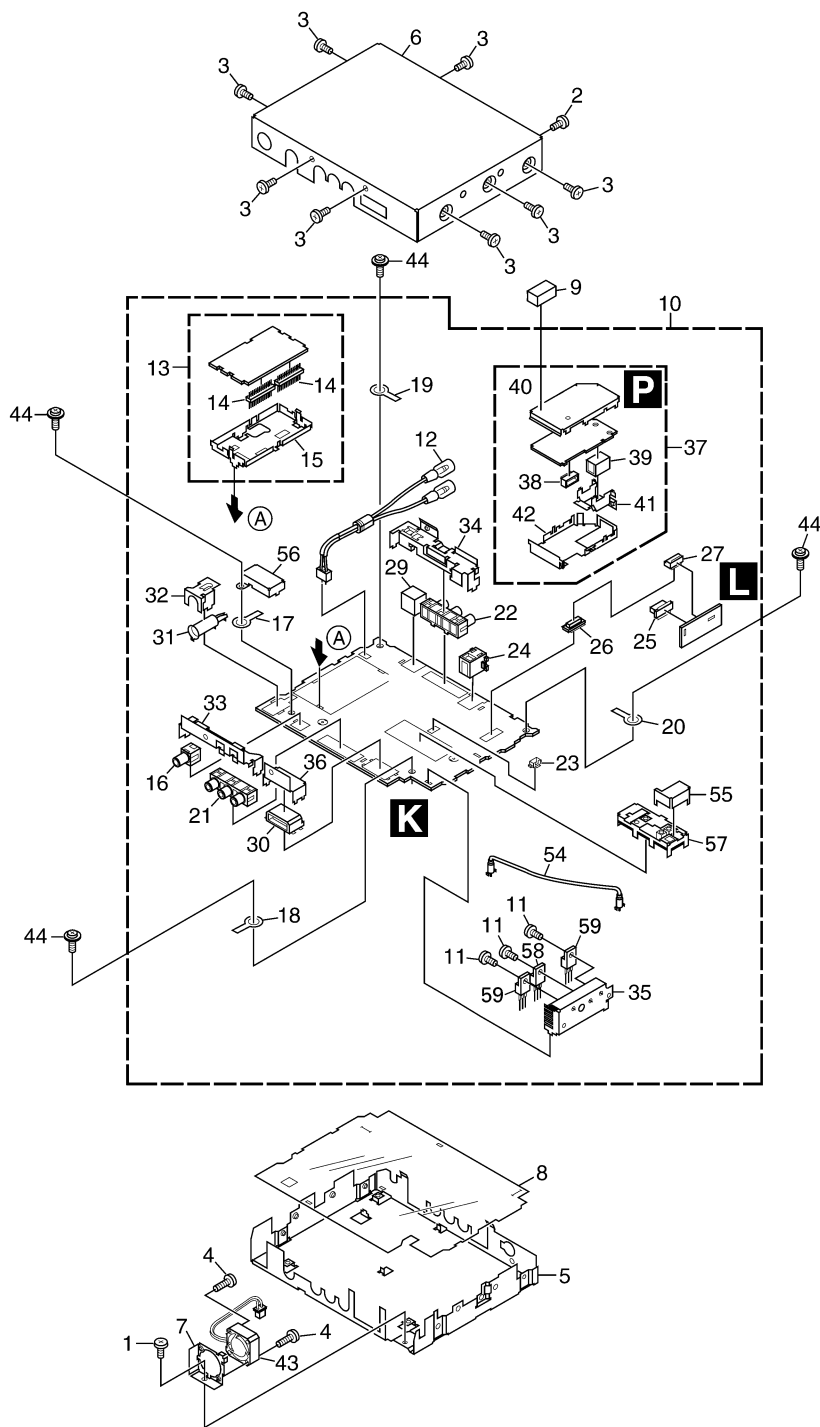
B

C

D

E

F





## HIDEAWAY UNIT AND CORD ASSY SECTION PARTS LIST

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	
1	Screw	BMZ26P030FTC	47	Resistor	RS1/2PMF102J	A
2	Screw	BMZ26P060FZK	48	Cord Assy	CDE7399	
3	Screw	BSZ26P060FTC	49	Cap	CNV6727	
4	Screw(M2.6x12)	CBA1620	50	Cord Assy(UC model)	CDE7487	
5	Chassis	CNA2697	51	Fuse(10A)	CEK1136	
6	Case(UC model)	CNB2925	52	Cord Assy(EW model)	CDE7486	
	Case(EW model)	CNB2924	53	Cap(EW model)	CKX-003	
7	Holder	CND1905	54	Cord(EW model)	CDH1332	
8	Insulator	CNM8565	55	Shield(EW model)	CND1337	
9	Gasket	CNM8954	56	Shield(EW model)	CND1964	B
10	Mother Tuner Unit(UC model)	CWM9137	57	Tuner Unit(Y1801)(EW model)	CWE1674	
	Mother Tuner Unit(EW model)	CWM9136	58	Transistor(Q1907)	2SB1629	
11	Screw	BMZ26P060FTC	59	Transistor(Q1908,1909)	2SD2396	
12	Cord Assy(CN1951)	CDE7397				
13	FM/AM Tuner Unit(UC model)	CWE1651				
	FM/AM Tuner Unit(EW model)	CWE1650				
14	Connector(CN101,102)	CKS4653				
15	Holder	CND1432				
16	Pin Jack(CN1351)	CKB1065				
17	Terminal(CN1401)	CKF1064				C
18	Terminal(CN1403)	CKF1064				
19	Terminal(CN1903)	CKF1064				
20	Terminal(CN1904)	CKF1064				
21	Pin Jack(CN1301)	CKS2918				
22	Pin Jack(CN1701)	CKS2918				
23	Connector(CN1950)	CKS3124				
24	Connector(CN1101)	CKS3414				
25	Connector(CN551)	CKS4065				
26	Connector(CN1841)	CKS4065				D
27	Connector(CN552)	CKS4280				
28	.....					
29	Connector(CN1201)	CKS4590				
30	Connector(CN1001)	CKS4646				
31	Antenna Jack(CN1402)	CKX1056				
32	Holder	CND1900				
33	Holder	CND1901				
34	Holder	CND1902				
35	Holder	CND1903				E
36	Holder	CND1904				
37	GPS Unit(UC model)	CWX2960				
	GPS Unit(EW model)	CWX2929				
38	Connector(CN461)	CKS4280				
39	Connector(CN504)	CKS4432				
40	Shield	CNC9192				
41	Holder	CNC9252				
42	Shield	CND1161				
43	Fan Motor	CXM1293				F
44	Screw	ISS26P060FTC				
45	Cord	CDE6825				
46	Cap	CNS1472				







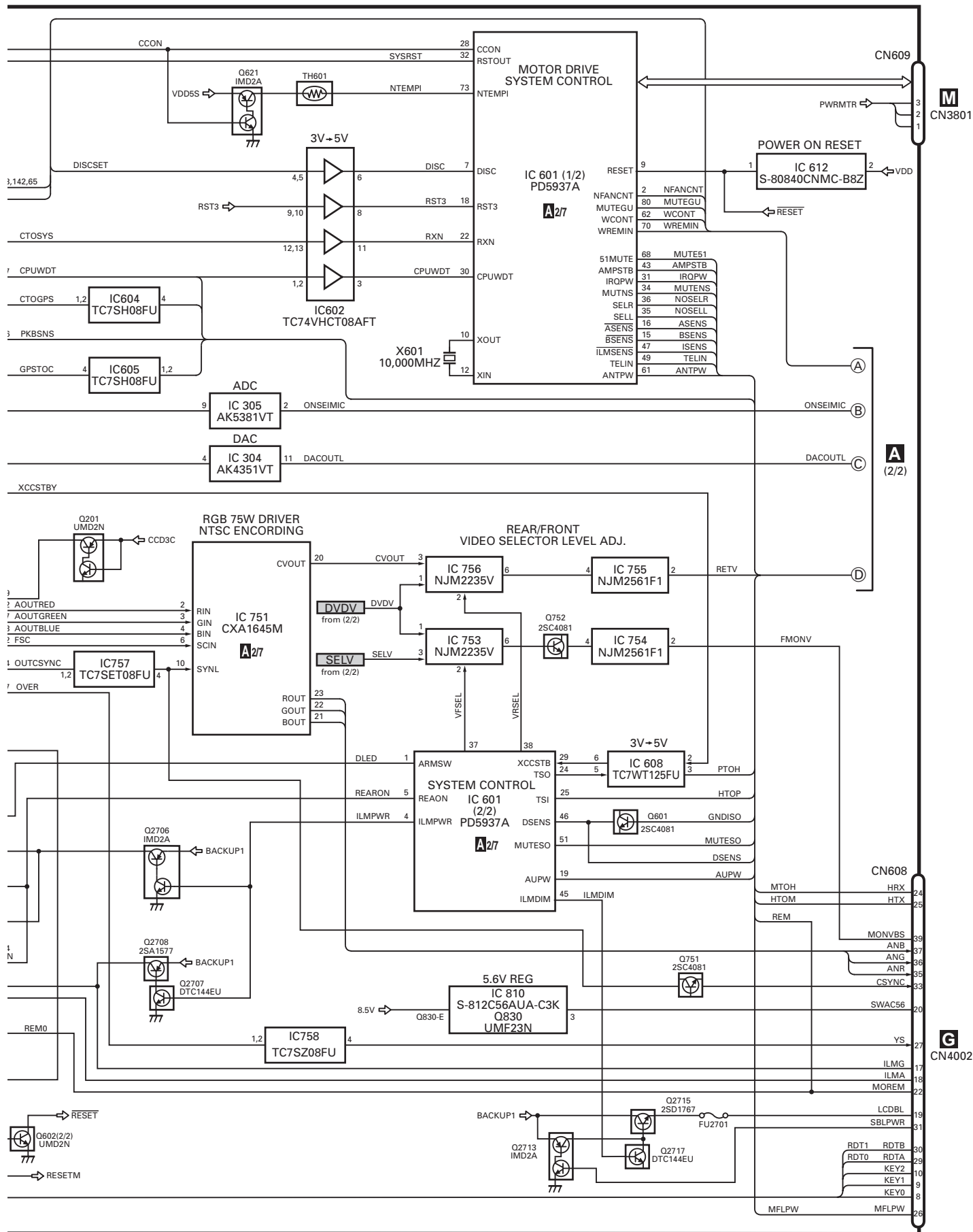
# DVD MECHANISM MODULE SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	DVD Core Unit(MS3)	CWX2941	* 57	Arm	CNV7163	
2	Connector(CN1501)	CKS4282	58	Arm	CNV7164	A
3	Connector(CN1401)	CKS4052	59	Roller	CNV7165	
4	Connector(CN1202)	CKS4624	60	Arm	CNV7166	
5	Connector(CN1611)	CKS4052				
6	Connector(CN1603)	CKS4374	61	Guide	CNV8093	
7	Connector(CN1101)	CKS4625	62	Gear	CNV7169	
8	Connector(CN1201)	CKS4067	63	Gear	CNV7170	
9	Screw	BMZ20P020FTC	64	Gear	CNV7171	
10	Screw(M2 x 3.5)	CBA1571	65	Gear(Black)	CNV7172	
11	Screw(M2 x 2.5)	CBA1623	66	Gear	CNV7173	
12	Washer	CBF1038	67	Gear	CNV7174	
13	Washer	CBF1064	68	Rack	CNV7175	B
14	Spring	CBH2586	69	Gear	CNV7176	
15	Spring	CBH2587	70	Arm	CNV8077	
16	Spring	CBH2588	71	Lever	CNV7178	
17	Spring	CBH2589	72	Lever	CNV7179	
18	Spring	CBH2590	73	Screw	IMS20P030FTC	
19	Spring	CBH2591	74	Gear	CNV7181	
20	Spring	CBH2592	75	Holder	CNV7183	
21	Spring	CBH2593	76	Holder	CNV7184	
22	Spring	CBH2594	77	Guide	CNV7745	
23	Spring	CBH2595	78	Roller	CNV7344	
24	Spring	CBH2596	79	Damper	CNV7470	C
25	Spring	CBH2597	80	Damper	CNV7471	
26	Spring	CBH2598	81	Collar	CNV7645	
27	Spring	CBH2599	82	Compound(A)	CWX3024	
28	Spring	CBH2600	* 83	Gathering PCB	CNX4277	
29	Spring	CBH2601	84	Compound(B)	CWX2753	
30	Spring	CBH2602	85	Washer	YE20FTC	
31	Spring	CBH2603	86	Chassis Unit	CXB8680	
32	Spring	CBH2604	87	Arm Unit	CXB8681	
33	Spring	CBH2605	88	Frame Unit	CXB8683	
34	Spring	CBH2711	89	Arm Unit	CXB8684	D
35	Spring	CBL1564	90	Bracket Unit	CXB8685	
36	Pickup Unit(Service)(DP5)	CXX1639	91	Motor Unit(LOADING)(M1)	CXB8687	
37	Shaft	CLA3881	92	Motor Unit(CARRIAGE)(M2)	CXB8688	
38	Shaft	CLA4206	93	Screw Unit	CXB8689	
39	Shaft	CLA4207	94	Roller Unit	CXB8690	
40	Lever	CNC9933	95	Motor(SPINDLE)(M3)	CXM1280	
41	Holder	CNC9939	96	Screw	JFZ20P018FTC	
42	Holder	CND2251	97	Photo-transistor(Q1299)	CPT231SCTD	
43	Holder	CNC9941	98	Switch(S1201)	CSN1051	
44	Frame	CND2250	99	Spring Switch(S1204)	CSN1052	
45	Sheet	CNM6883	100	Resistor(R1298)	RS1/16S0R0J	E
46	Sheet	CNM8283	101	.....		
47	Sheet	CNM8287	102	.....		
48	Lever	CNV8076	103	Arm	CNV7742	
49	Lever	CNV7155	104	Arm	CNV7743	
50	Cam	CNV7156	105	Spring	CBH2710	
51	Rack	CNV7157	106	Spring	CBL1643	
52	Clamper	CNV7158	107	Spring	CBH2712	
53	Arm	CNV7159	108	Pickup Unit(Service)(Screw)	GXX1234	
54	Arm	CNV7160	109	Screw Assy	CXX1750	
55	Arm	CNV7161	110	Screw(M1.4xM1.4)	CBA1787	F
56	Arm	CNV7162				



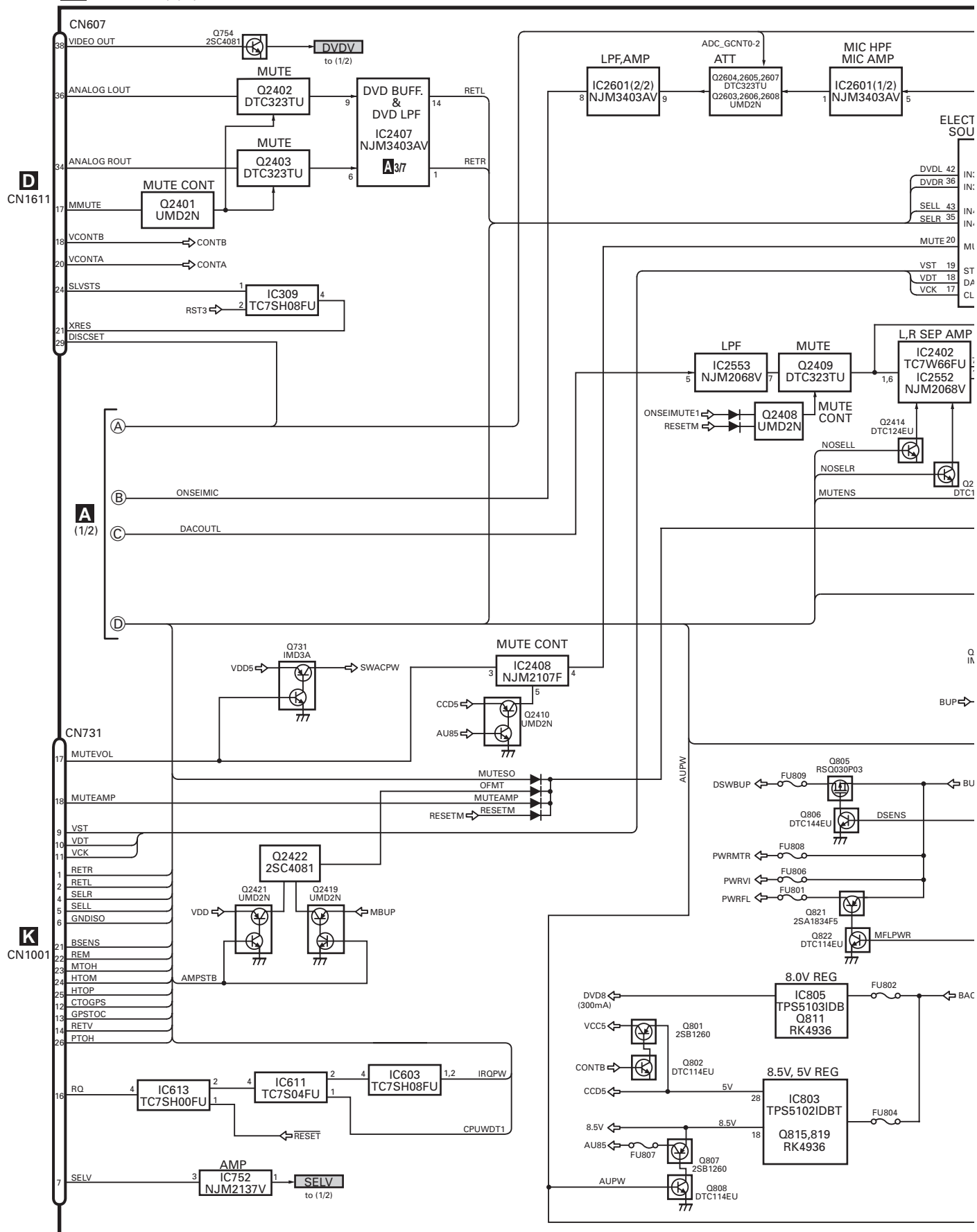




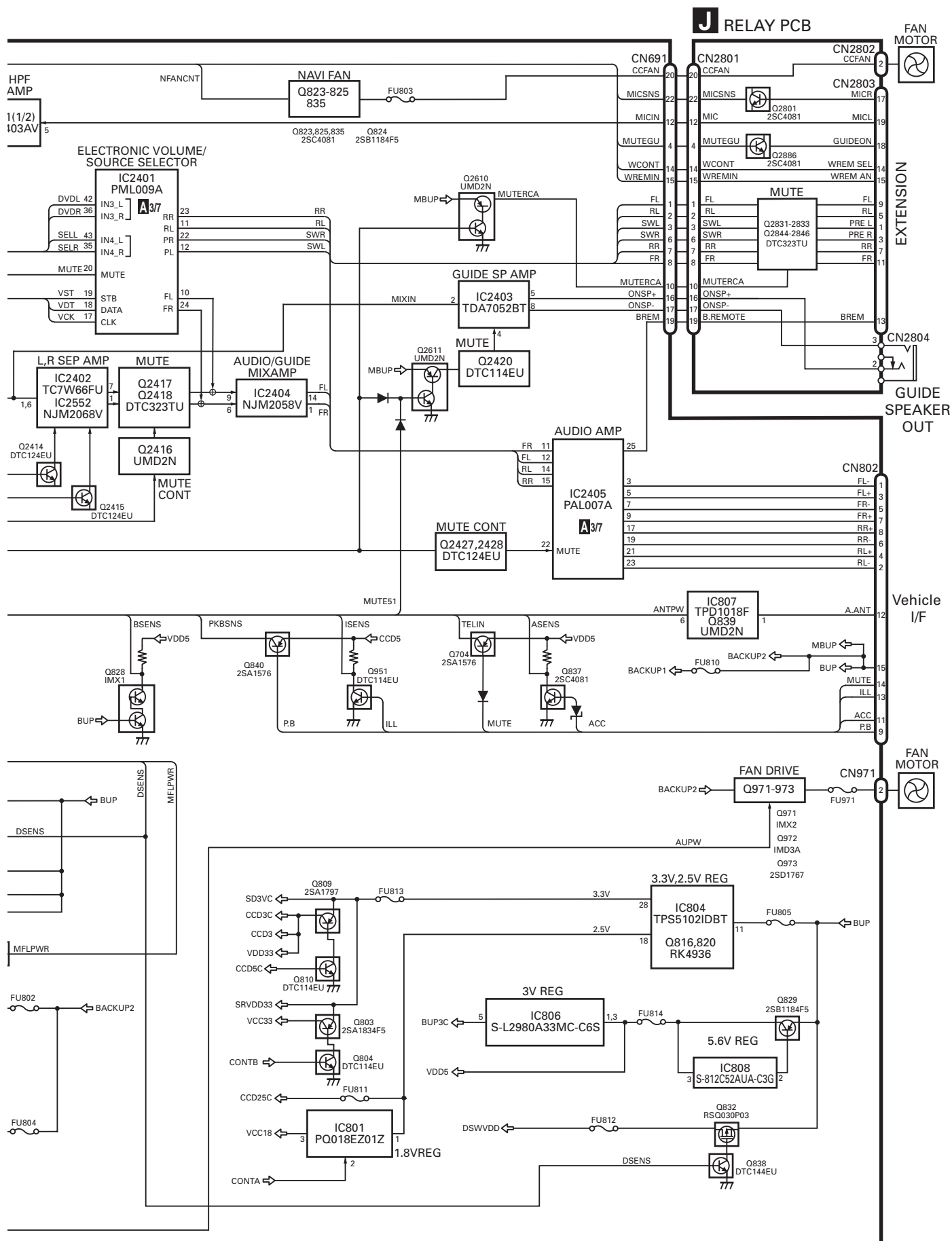




# **A** CC UNIT (2/2)



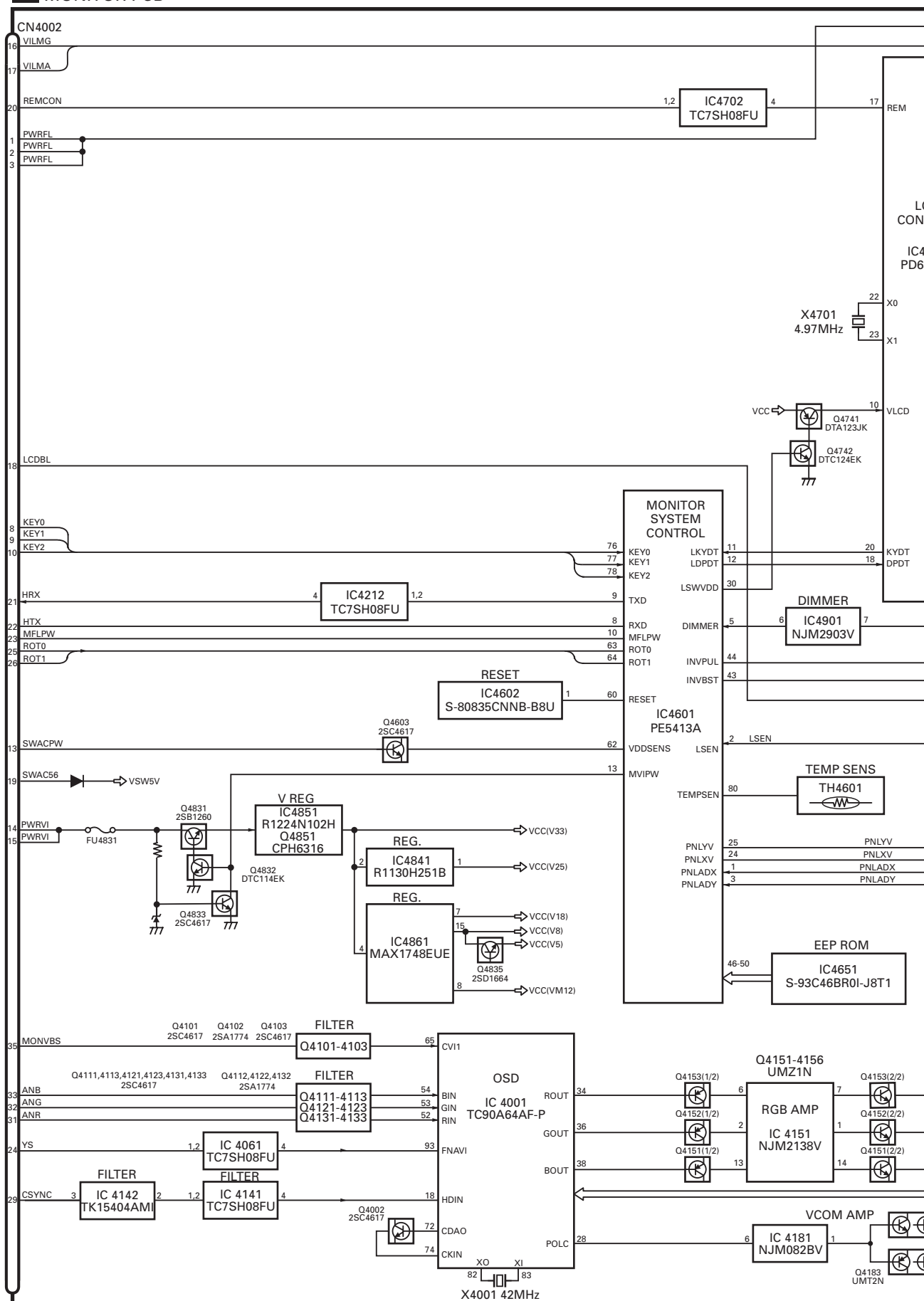






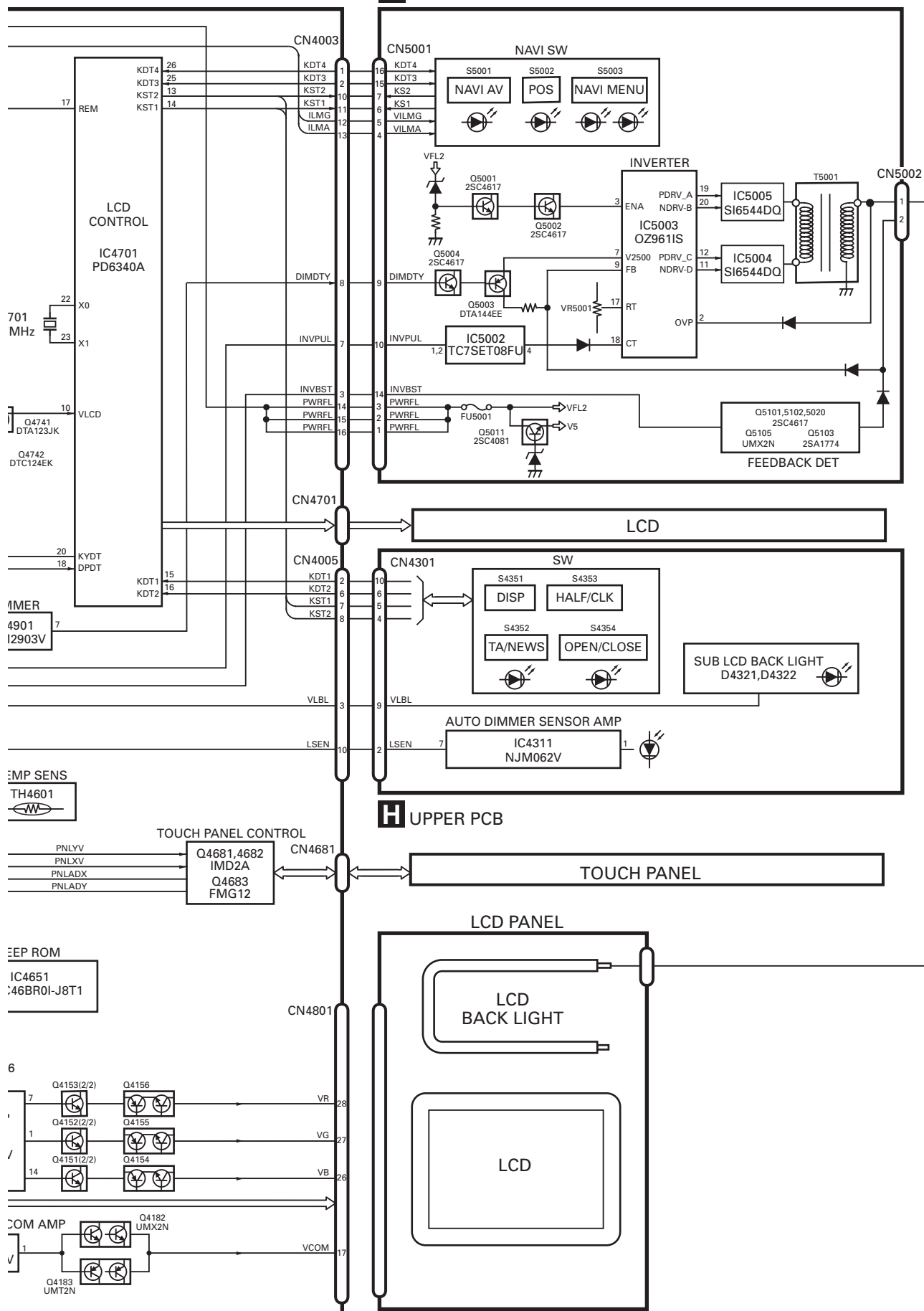
# G MONITOR PCB

A  
CN608





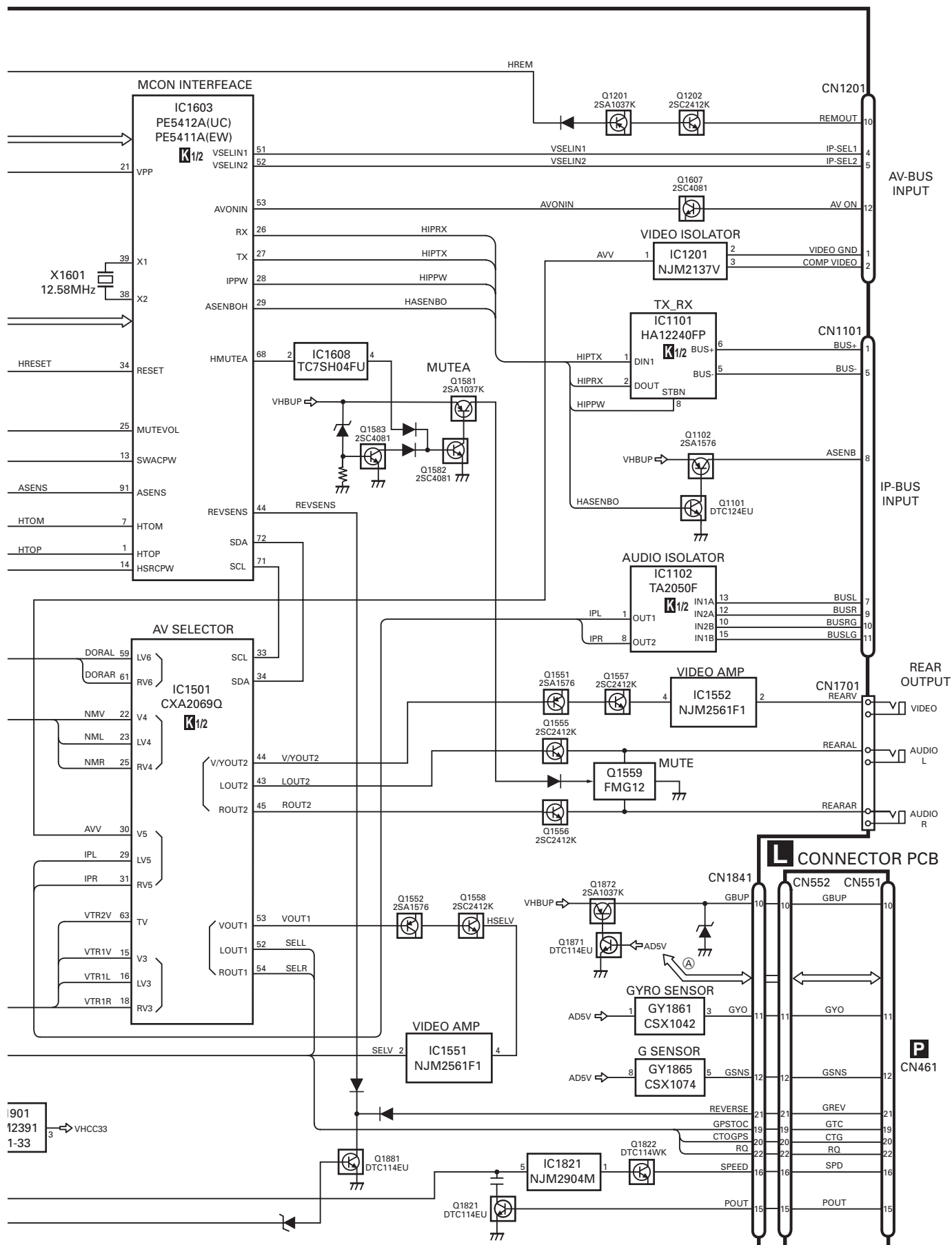
# I INVERTER PCB





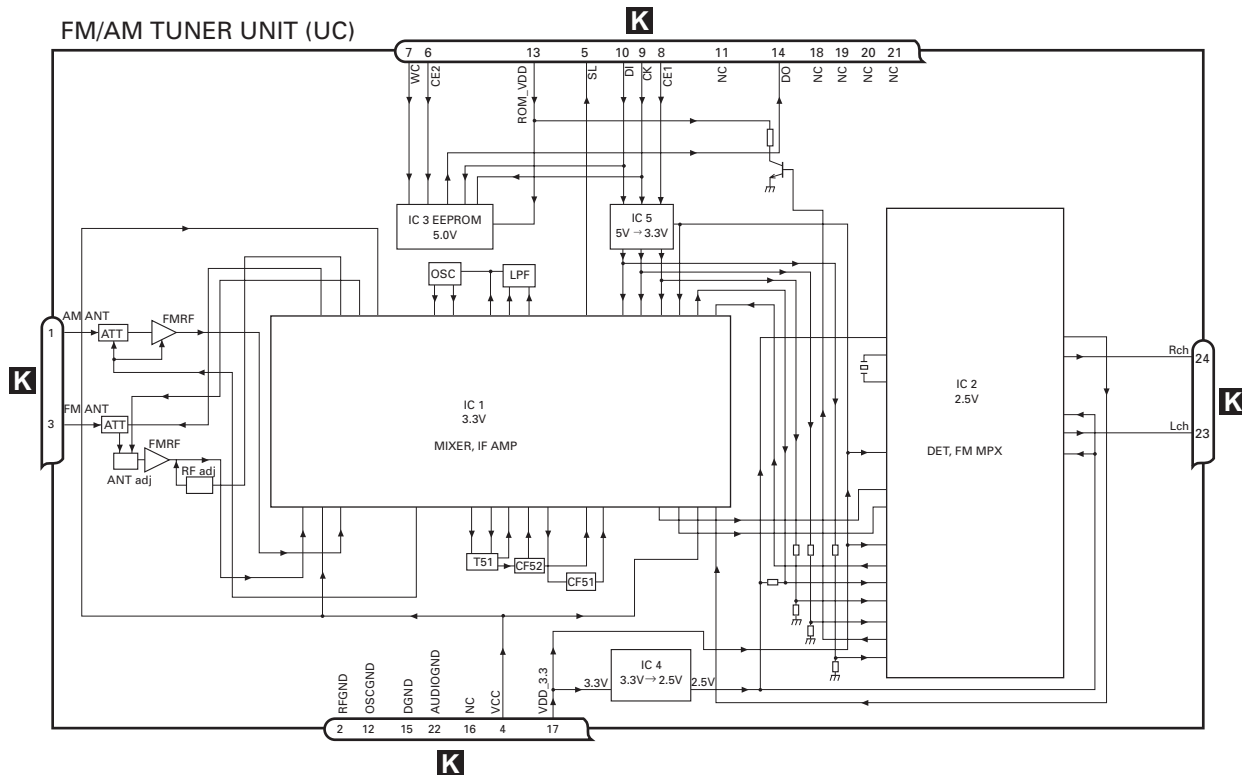




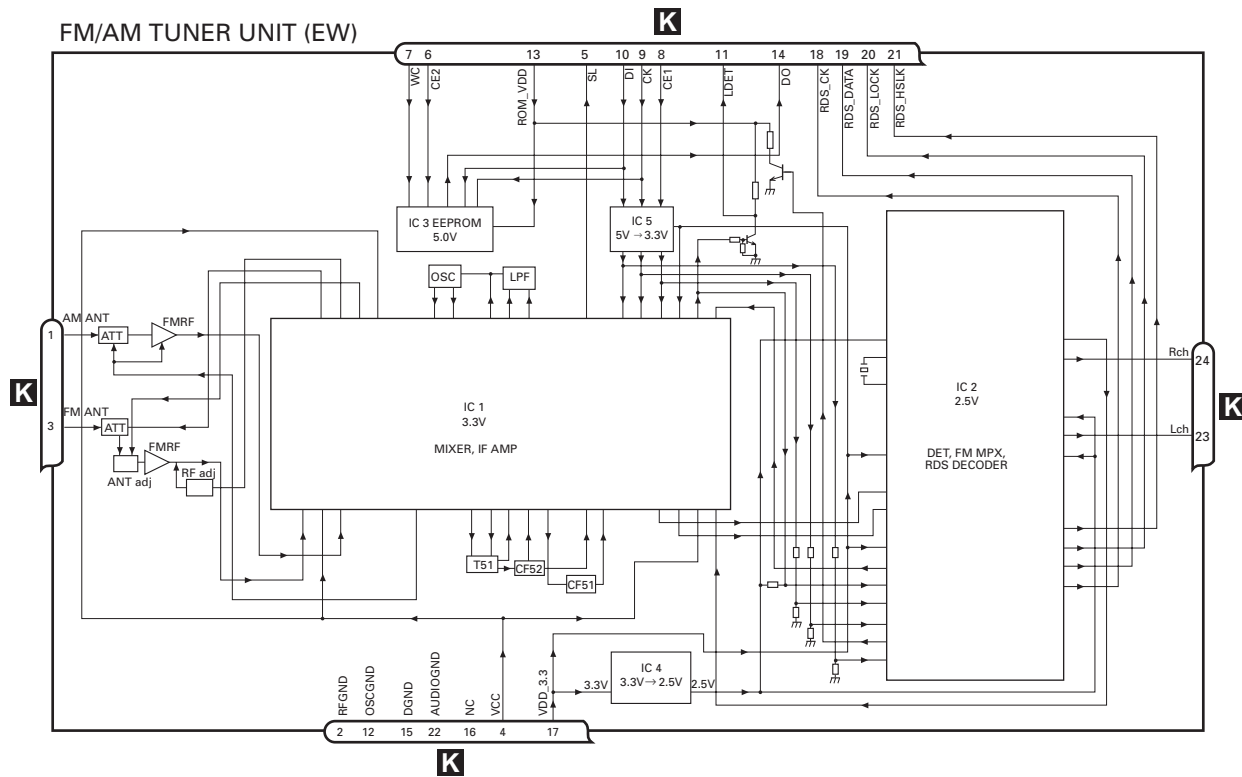




## FM/AM TUNER UNIT (UC)



## FM/AM TUNER UNIT (EW)

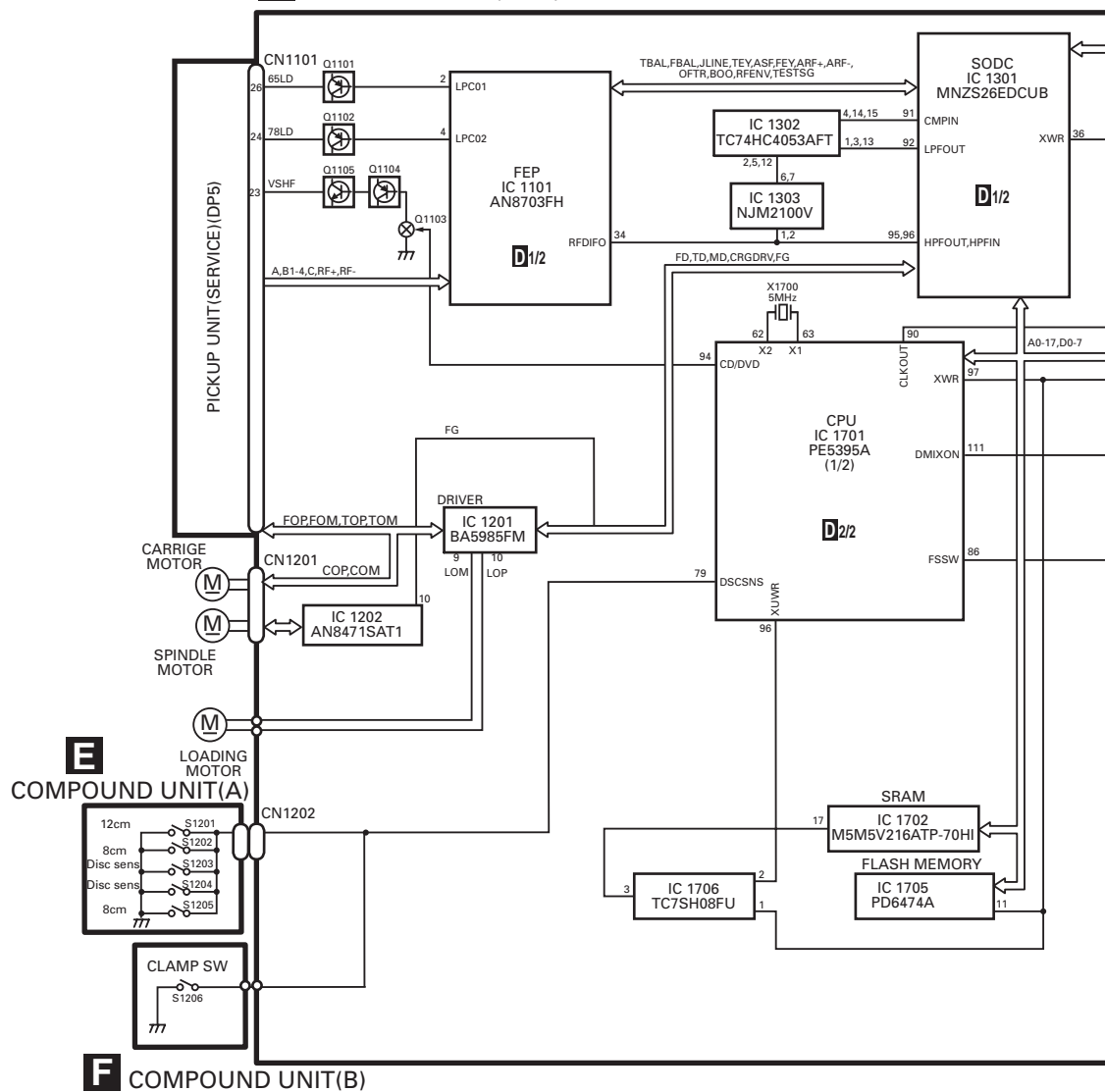




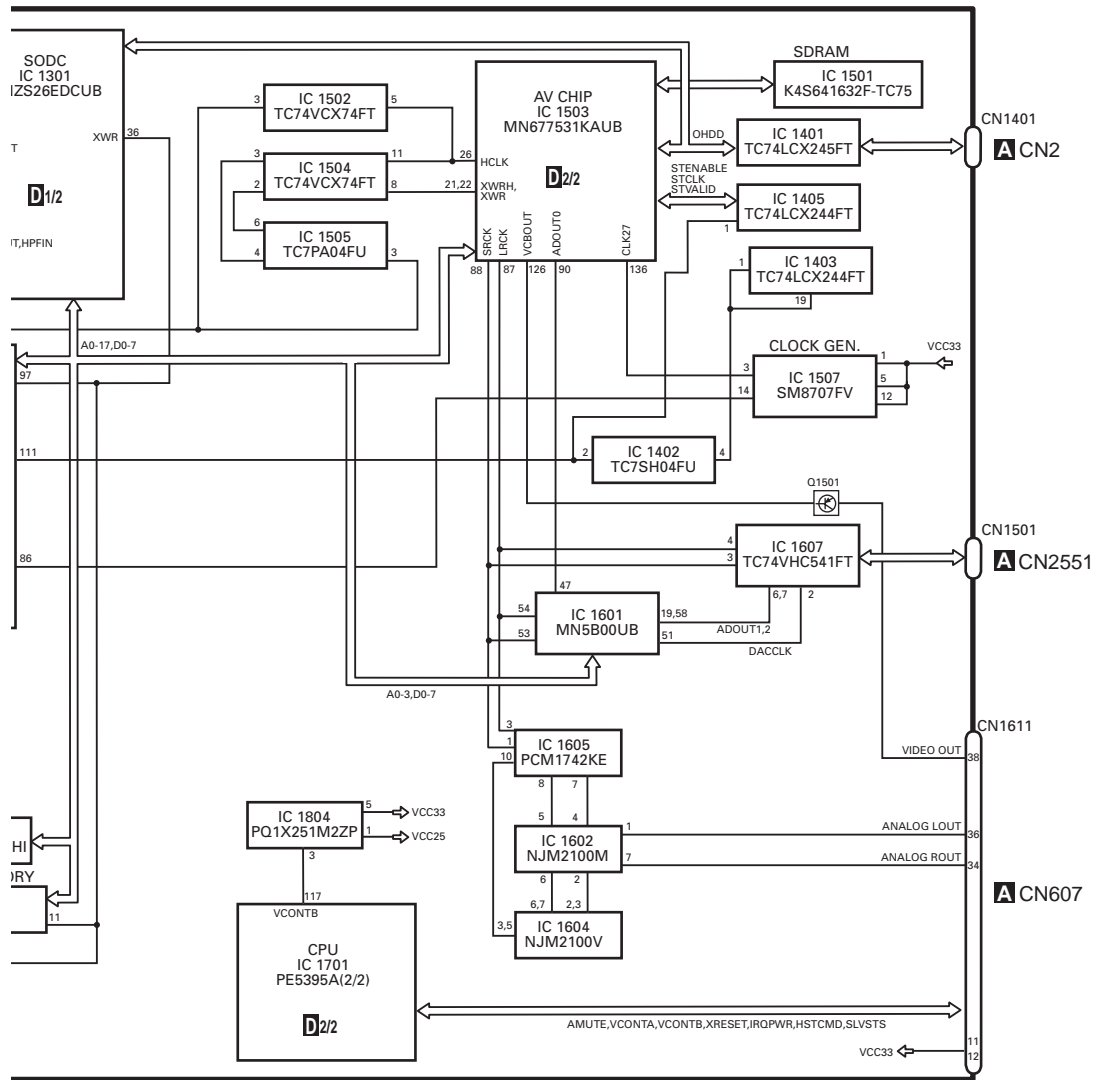




# D DVD CORE UNIT (MS3)



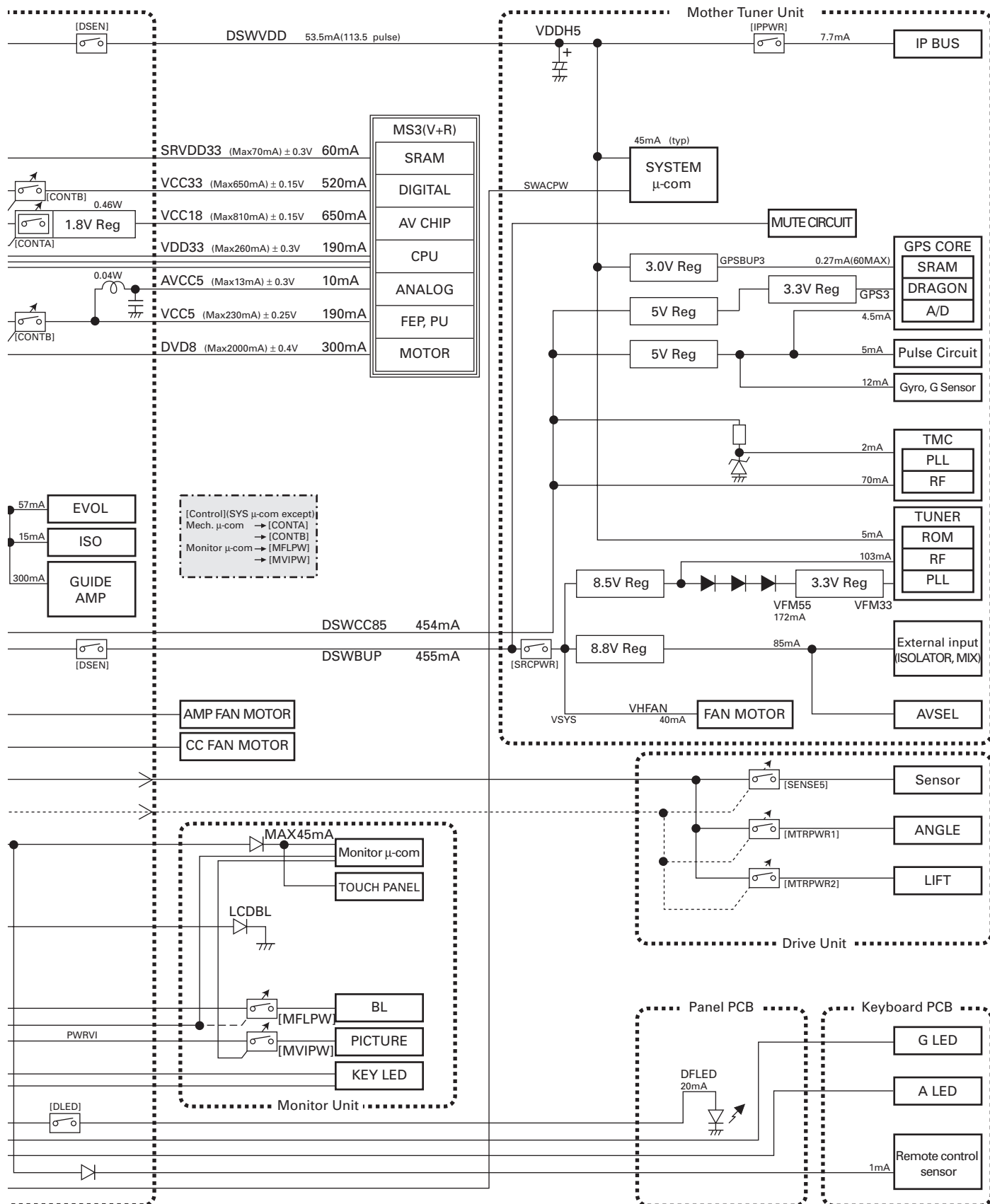






**F**













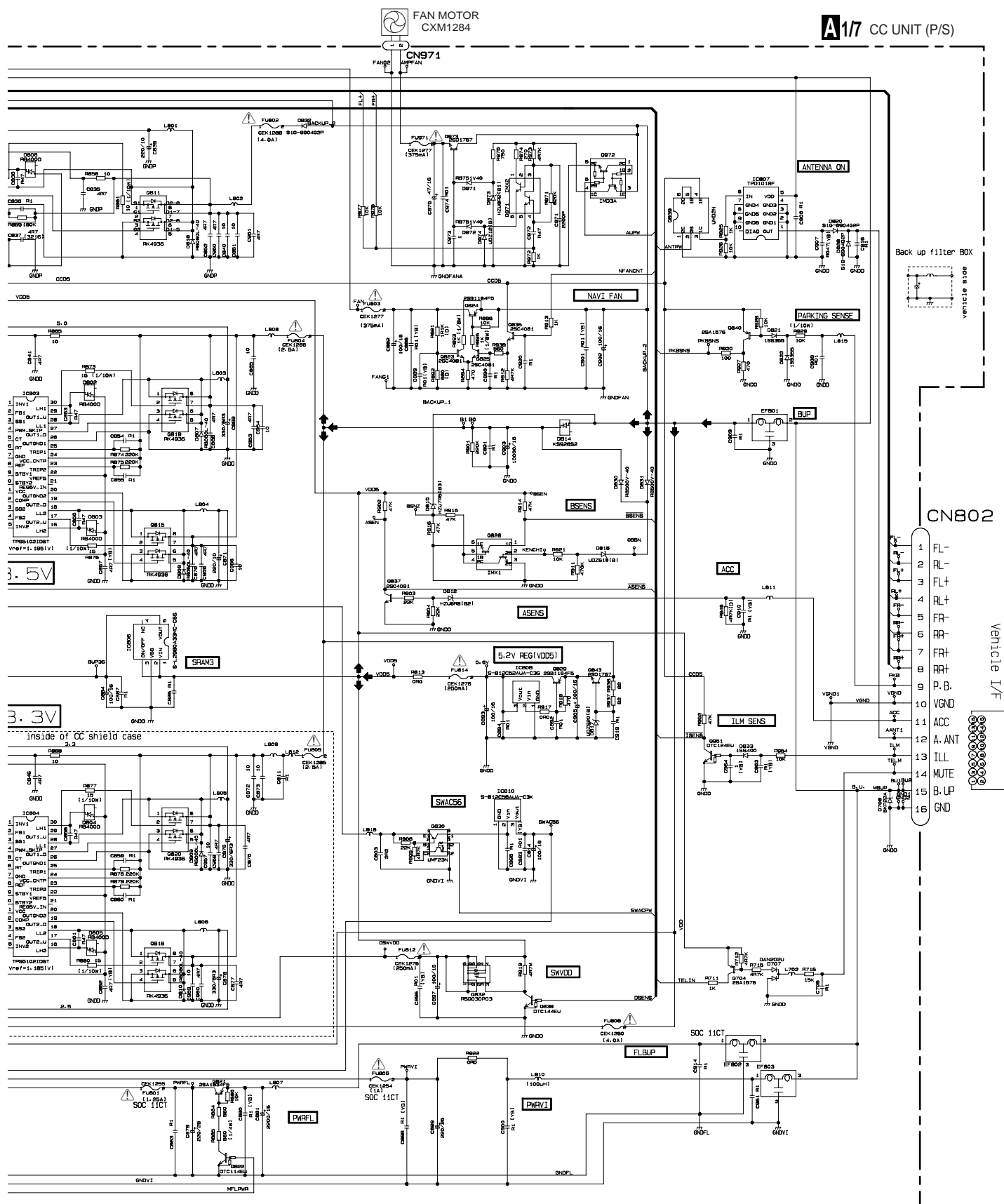






A-b17

A17 CC UNIT (P/S)



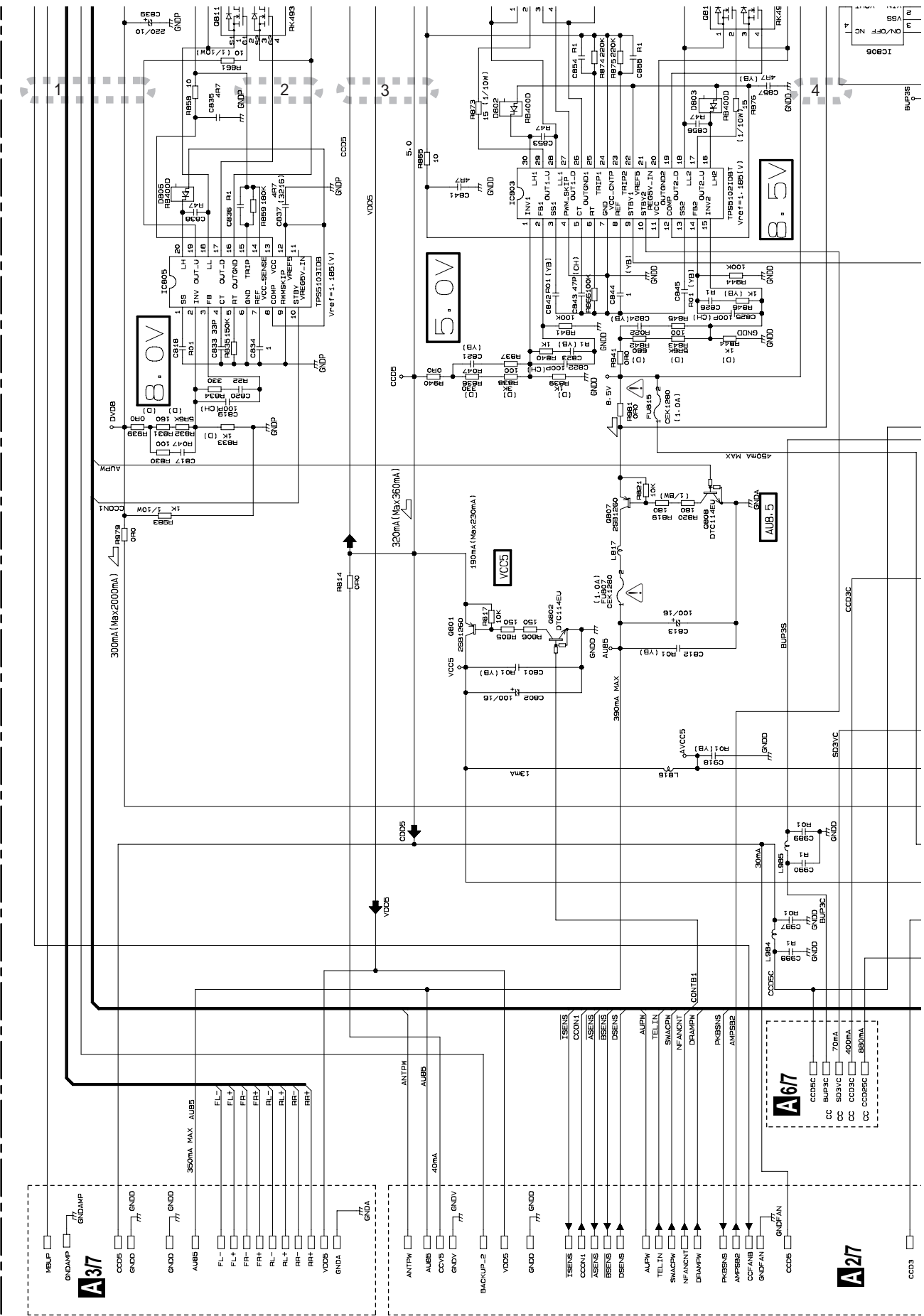


A  
B  
C  
D  
E  
F

A-b 1/7

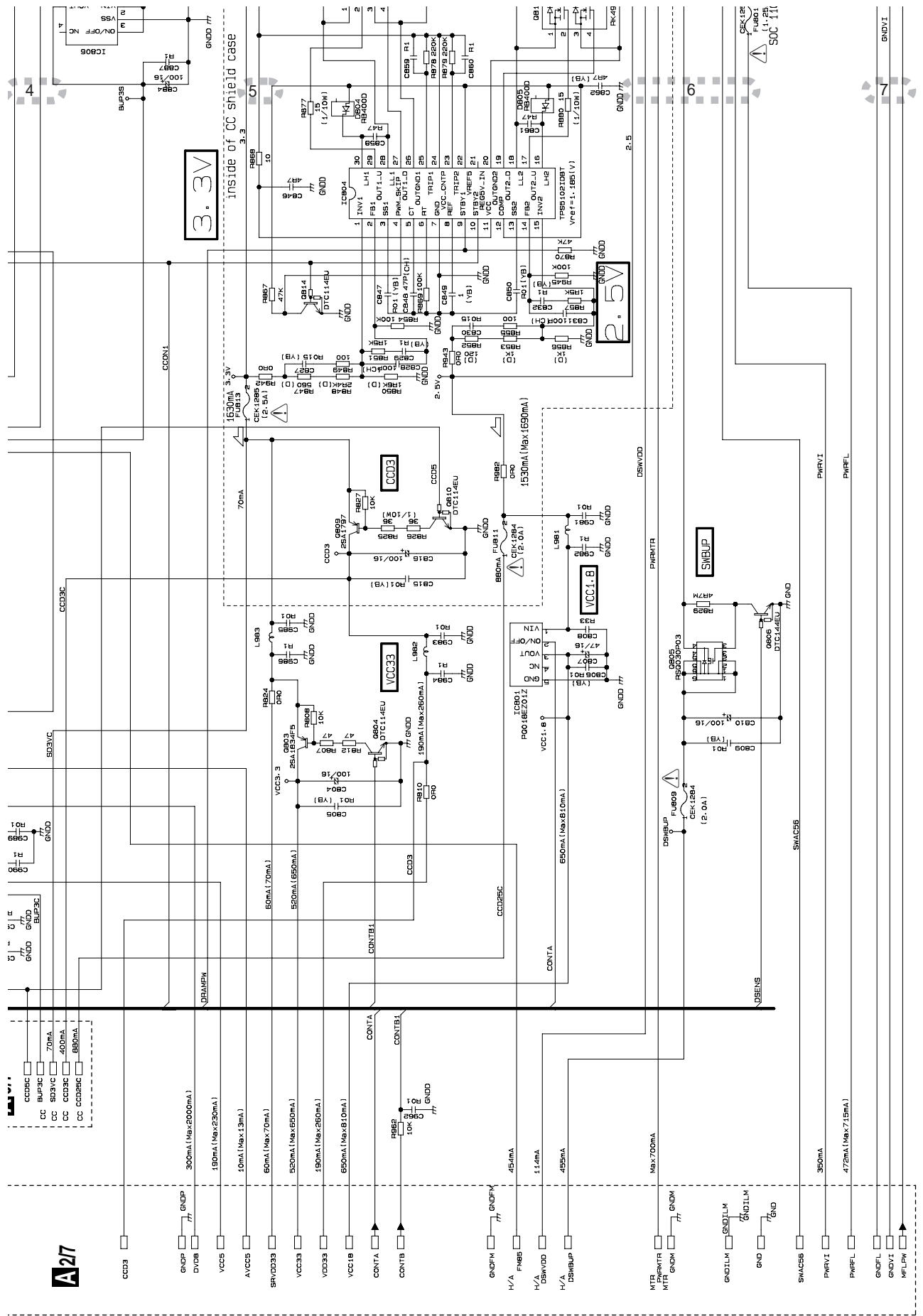
A-a A-b

A-a 1/7





A2/7



A-b 1/7

A-a A-b

A-a 1/7

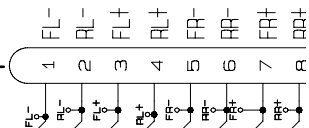
AVIC-N1/UC

45

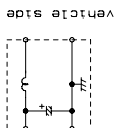


Vehicle

CN802



Back up filter BOX



ANTENNA ON

PARKING SENSE

BUP

ACC

NAVI FAN

BSENS

ASENS

5.2V REG(VDD5)

FLM14

FAN MOTOR  
CXM1284

CN971

FANG2

FR+

A

B

C

D

E

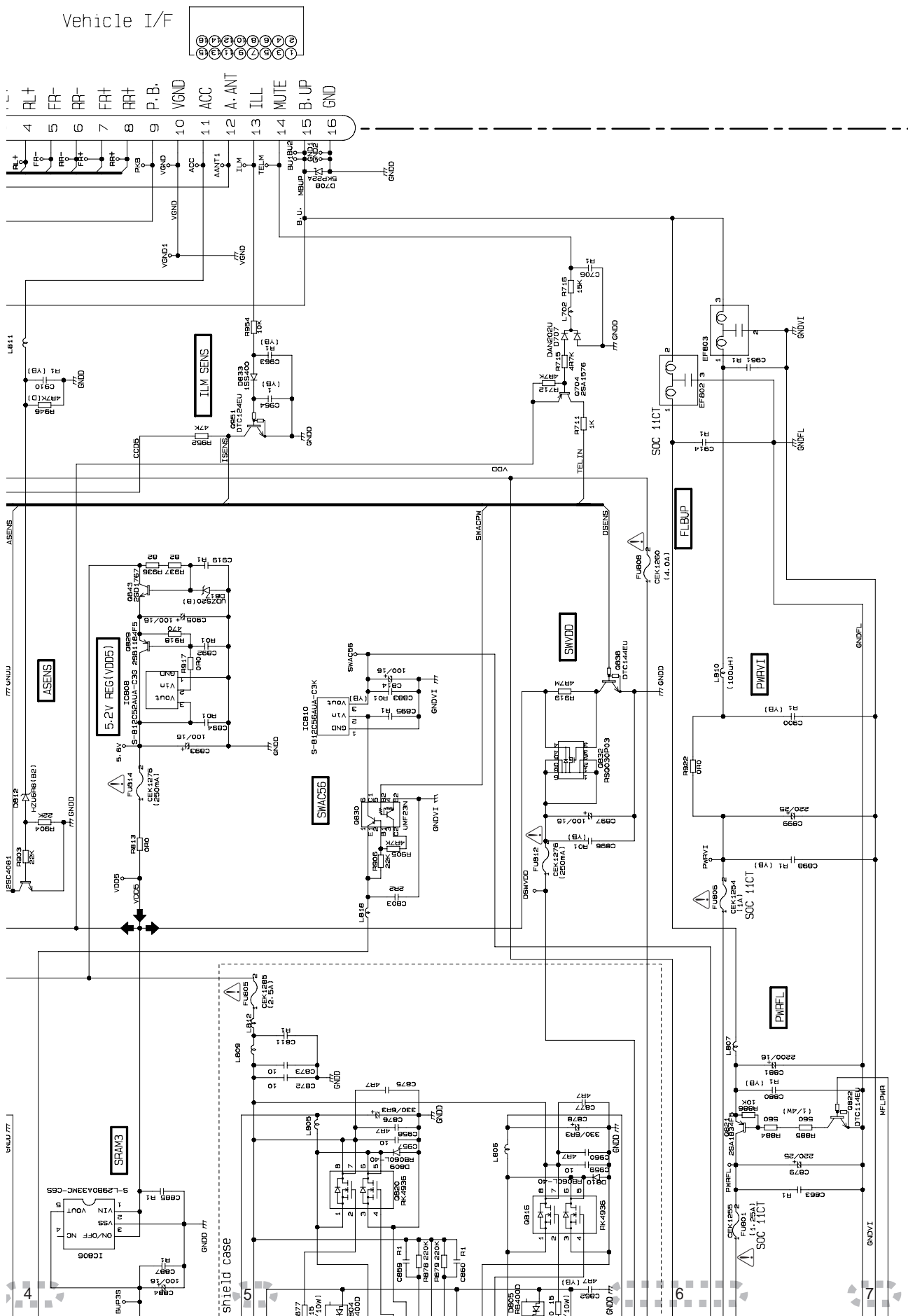
F

A-a A-b

A-b 1/7



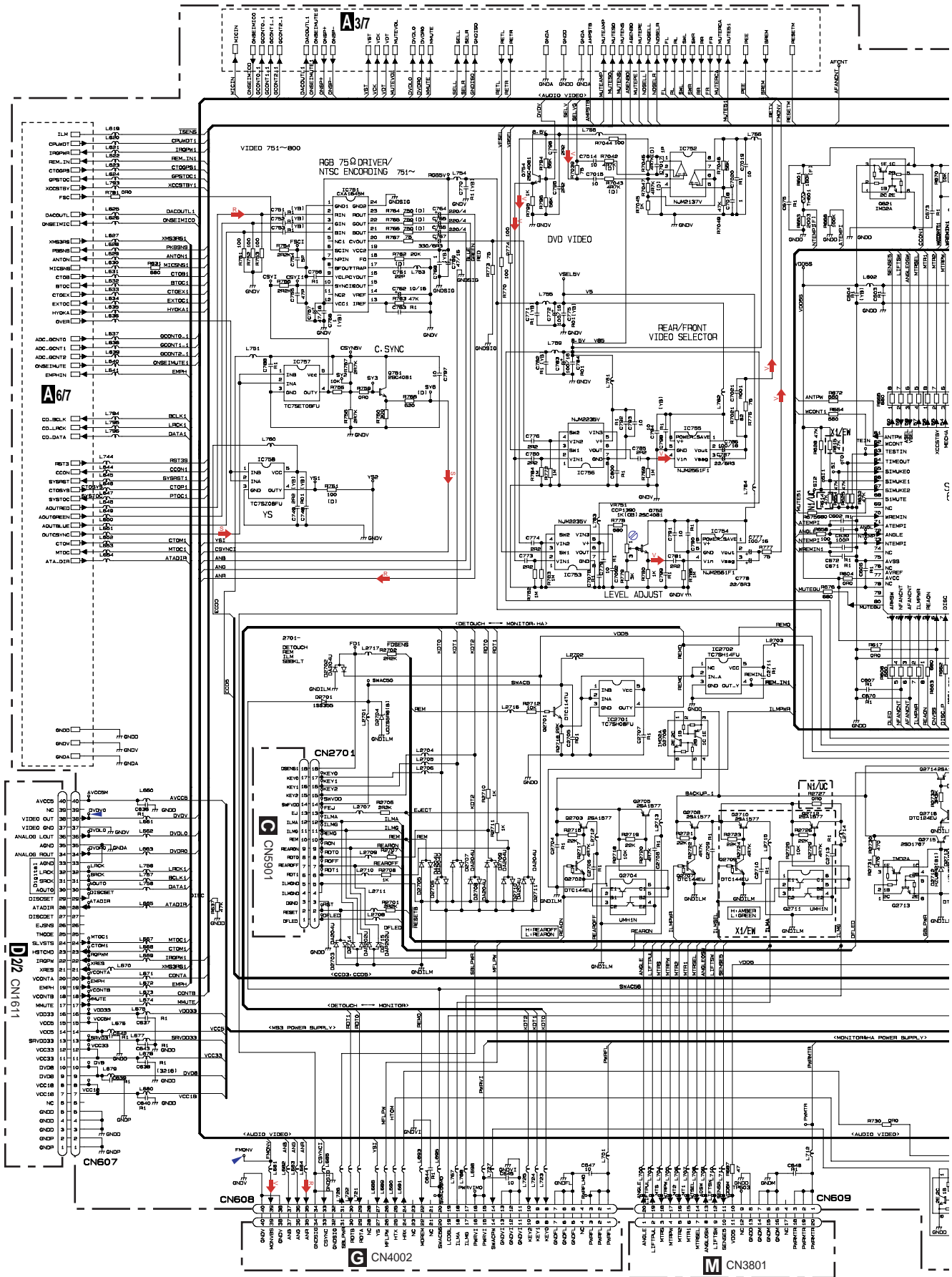
Vehicle I/F





# 3.4 CC UNIT (SYSCOM, VIDEO, IF)(GUIDE PAGE)

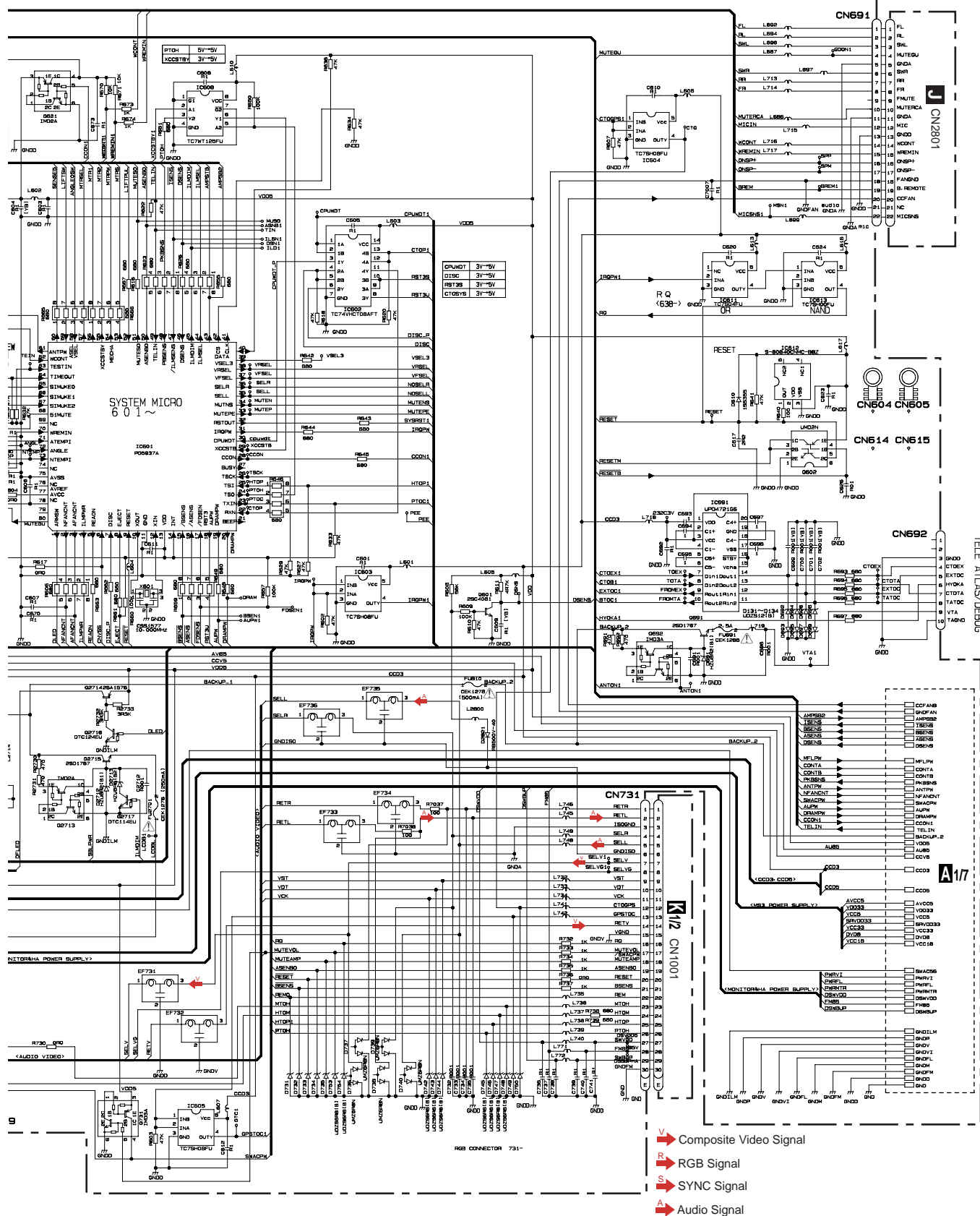
A-a 2/7





A-b 2/7

A/2/7 CC UNIT (SYSCOM, VIDEO, IF)



A/2/7



A

B

C

D

E

F

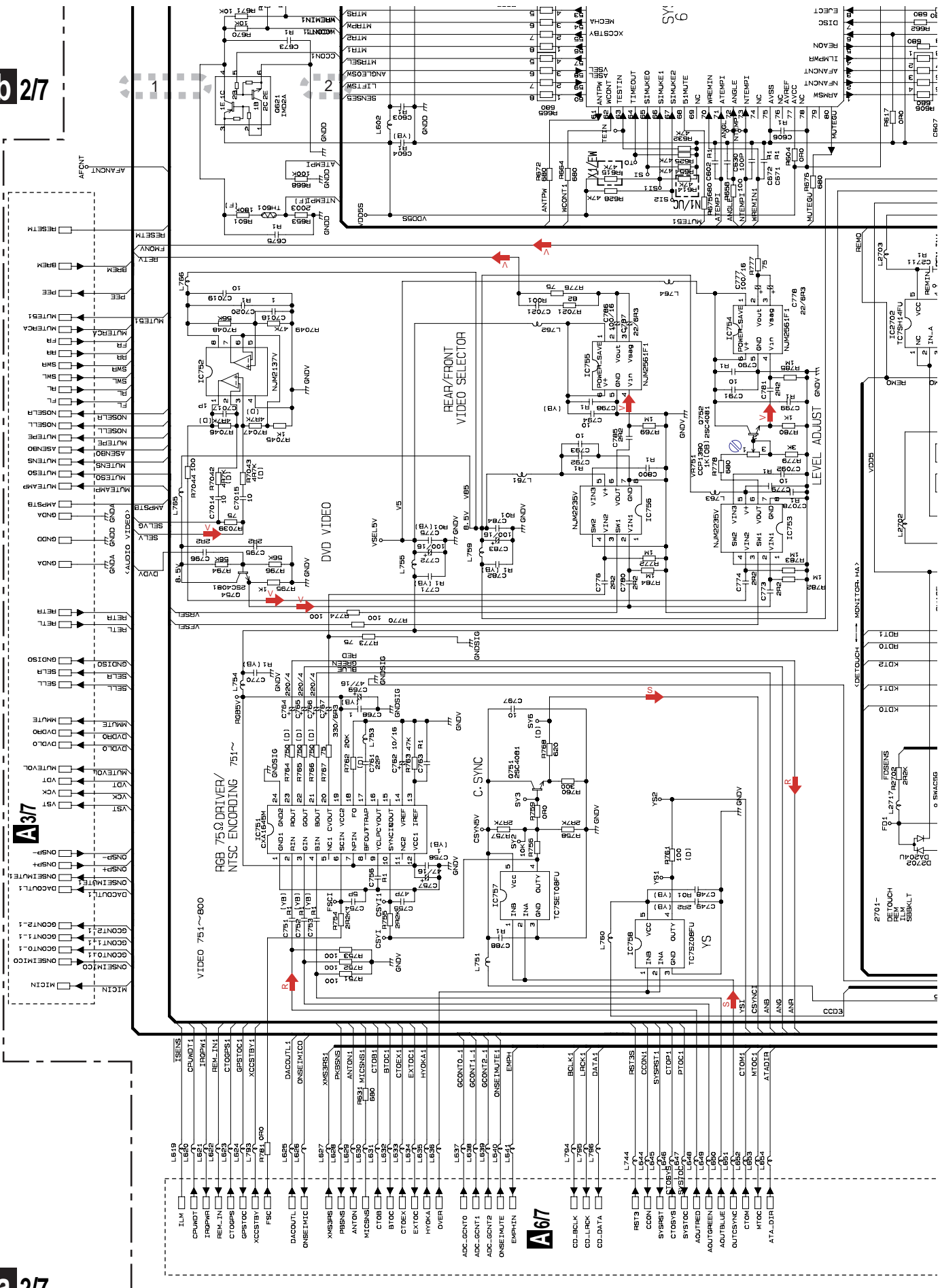
A-b 2/7

A-a A-b

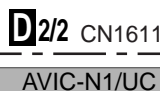
A-a 2/7

50

AVIC-N1/UC



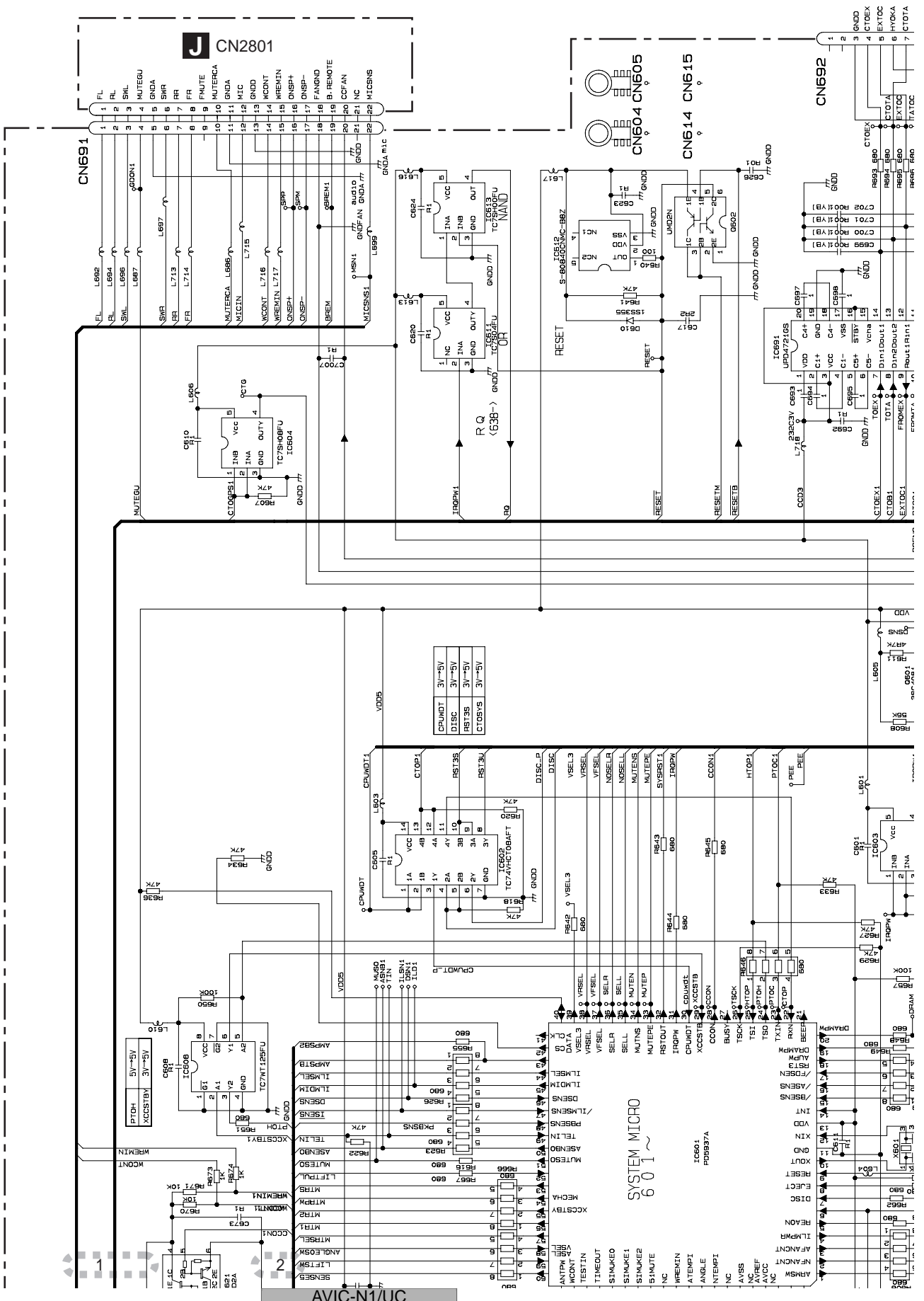






A27 CC UNIT (SYSCOM, VIDEO, IF)

A-b 2/7

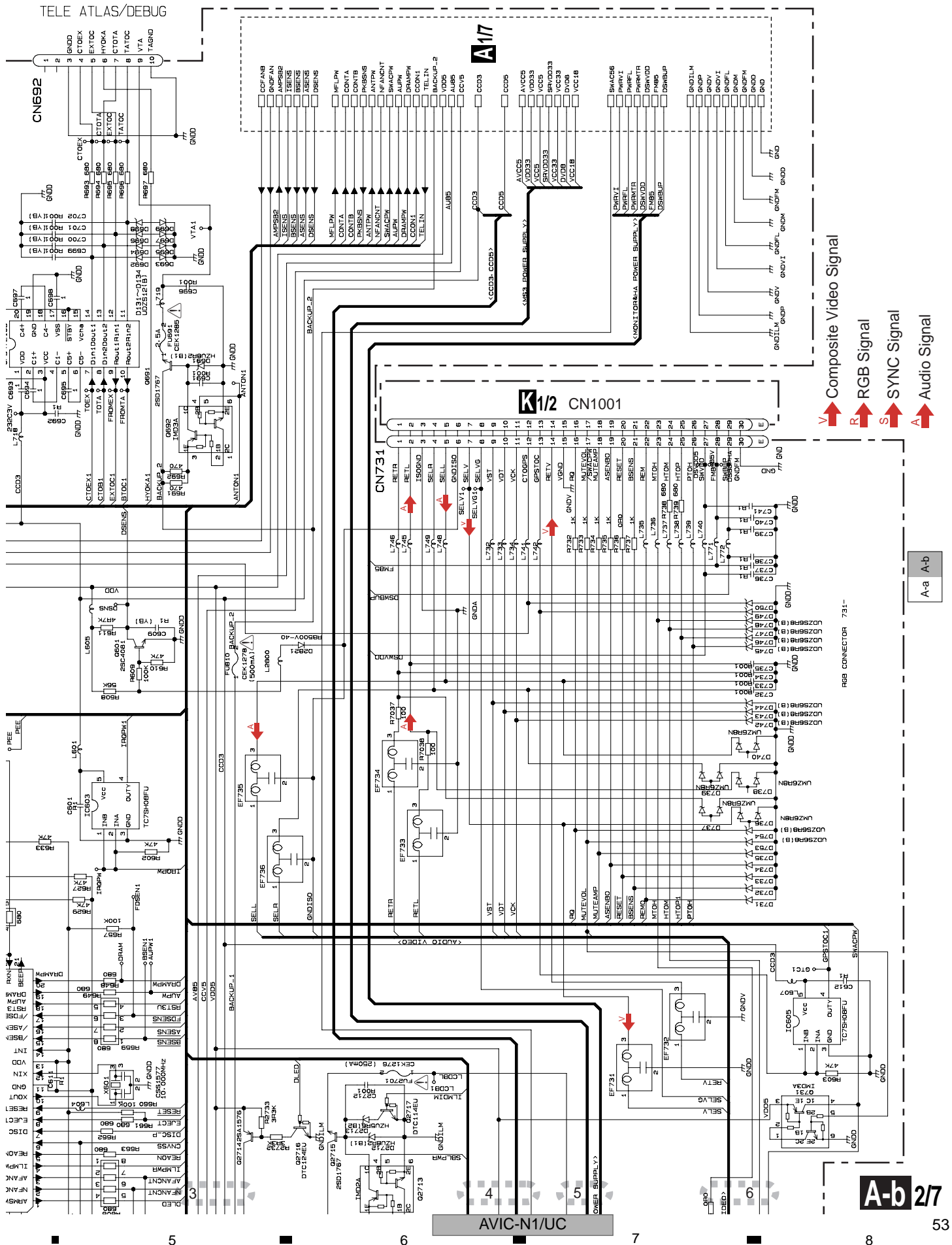


TELE ATLAS

SYSTEM MICRO 601

AVIC-N1/UC

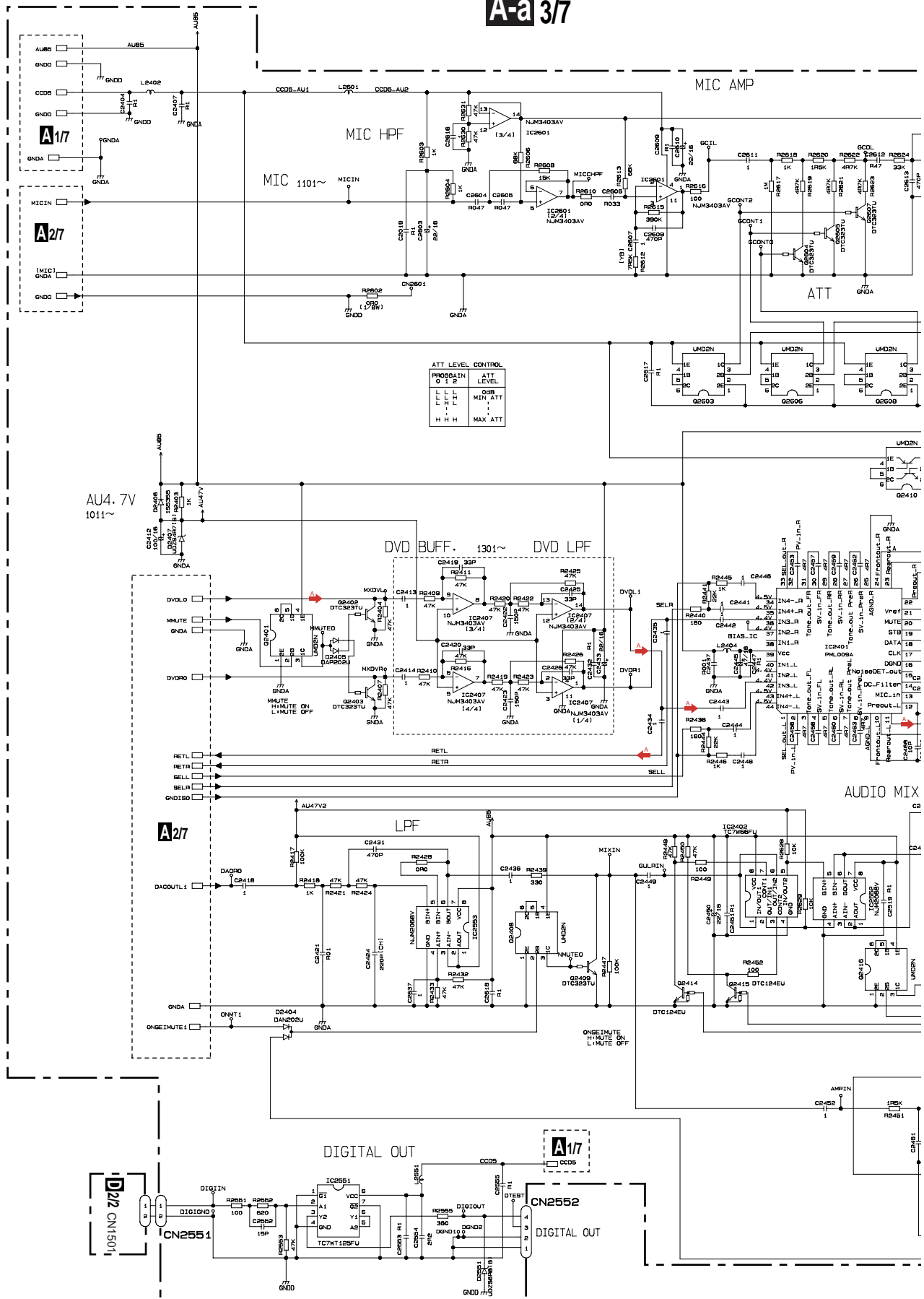






# 3.5 CC UNIT (AUDIO)(GUIDE PAGE)

A-a 3/7

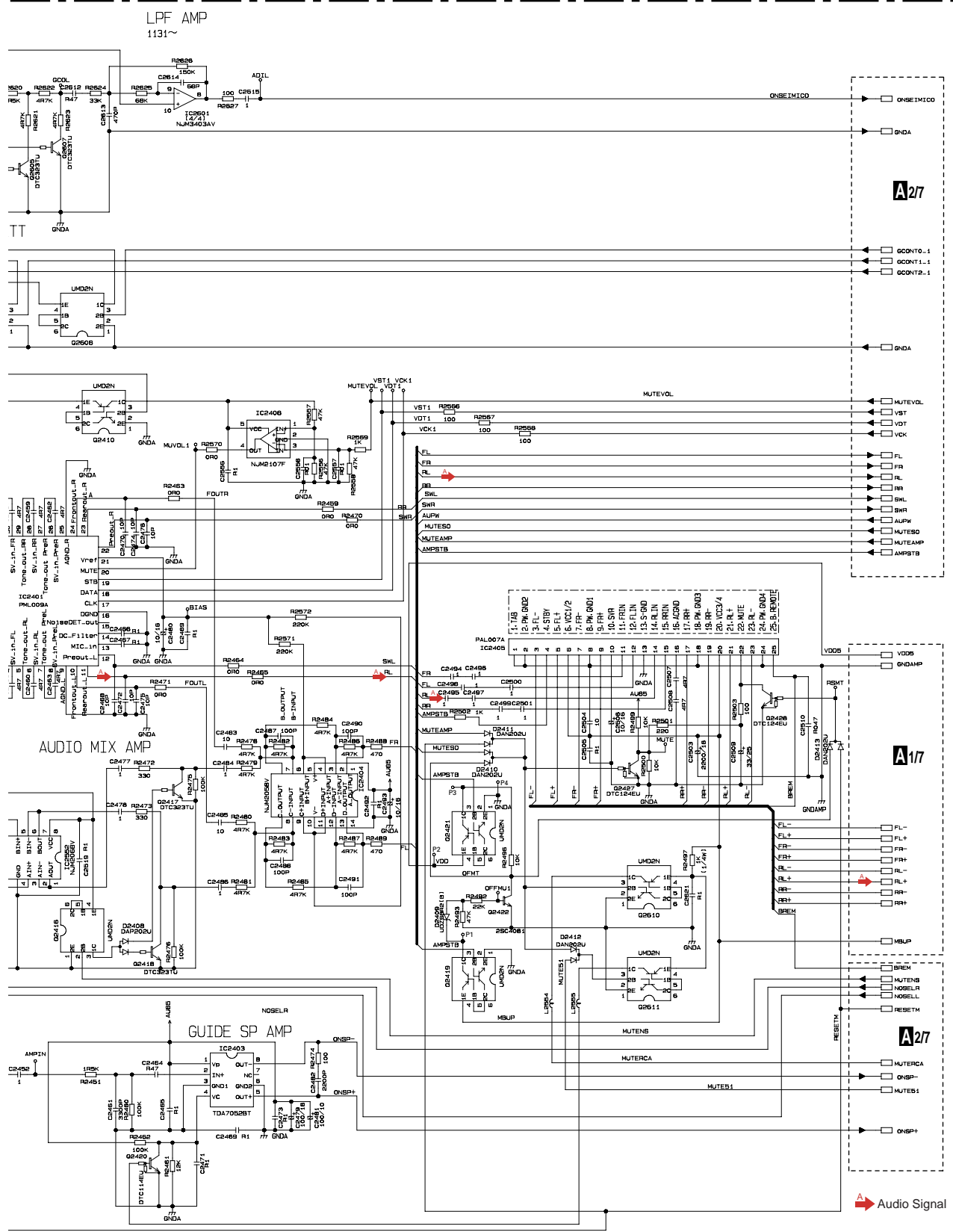


A 3/7



A-b 3/7

A3/7 CC UNIT (AUDIO)





A-b 3/7

A-a

A-a 3/7

MIC AMP

MIC HPF

MIC 1101~

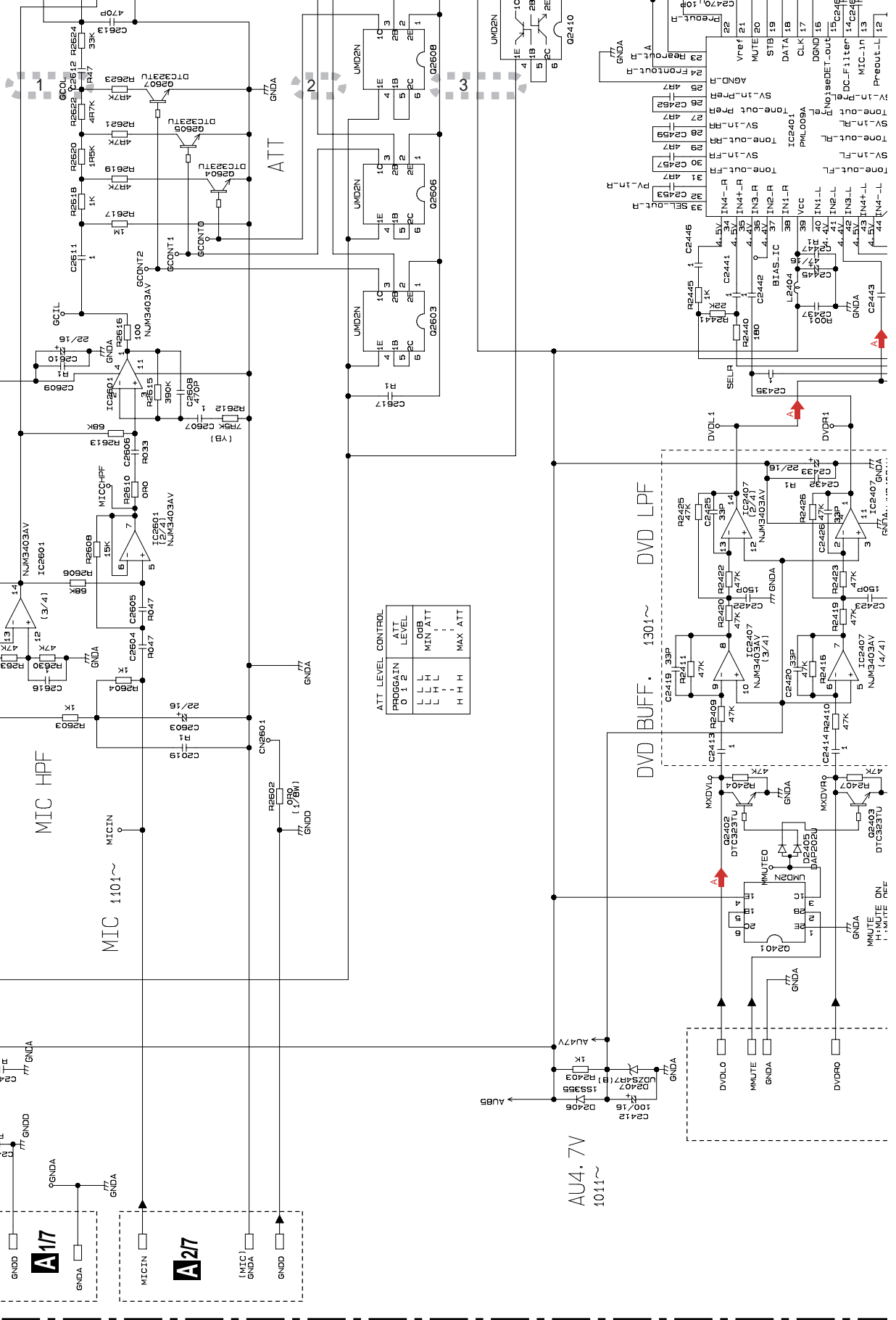
AVIC-N1/UC

ATT LEVEL CONTROL			
PROGRAM	ATT LEVEL	0dB	MIN ATT
L	L	L	L
L	L	L	L
L	L	L	L
H	H	H	H
H	H	H	H
H	H	H	H

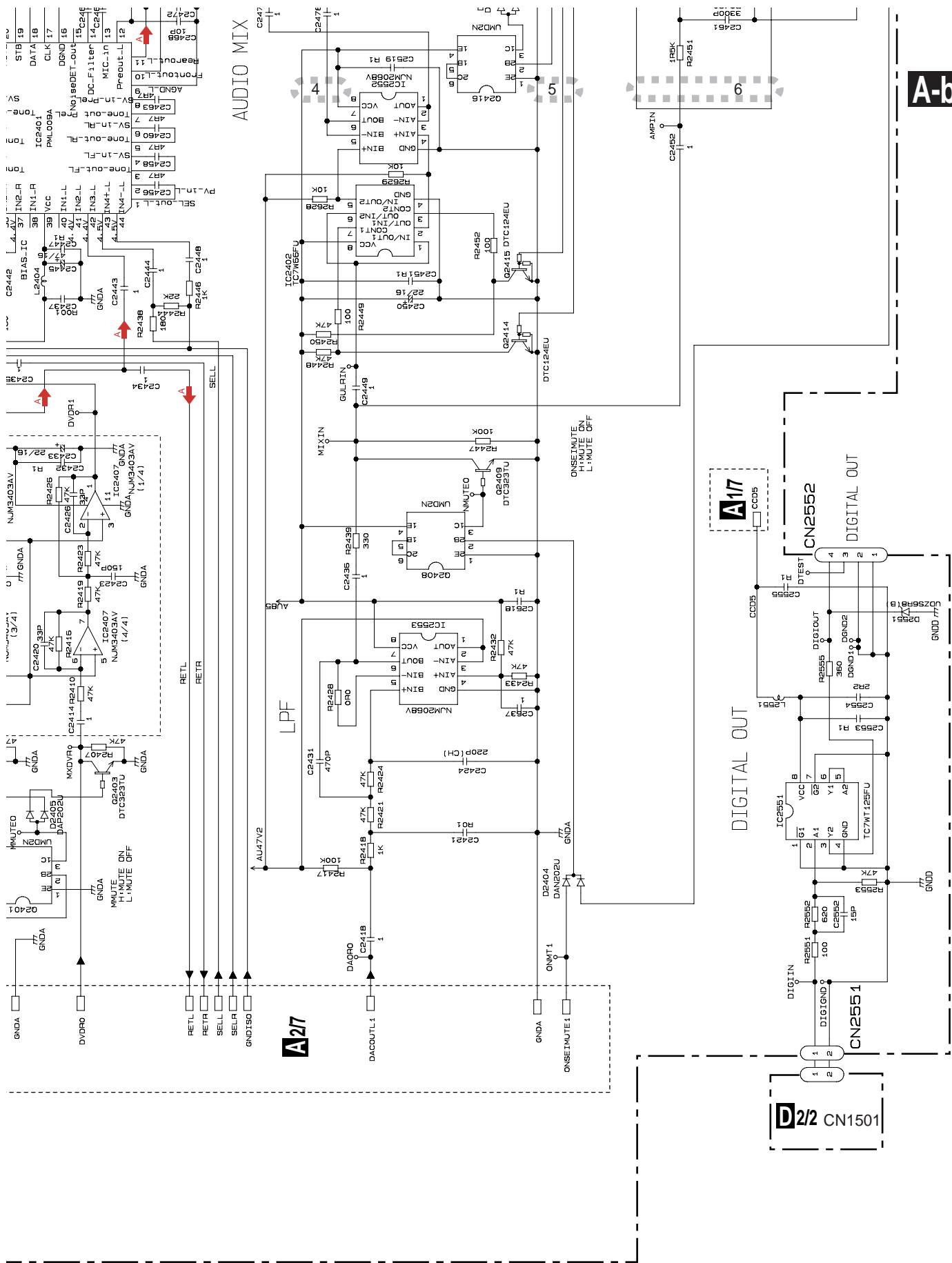
AU4. 7V  
1011~

DVD BUFF. 1301~

DVD LPF









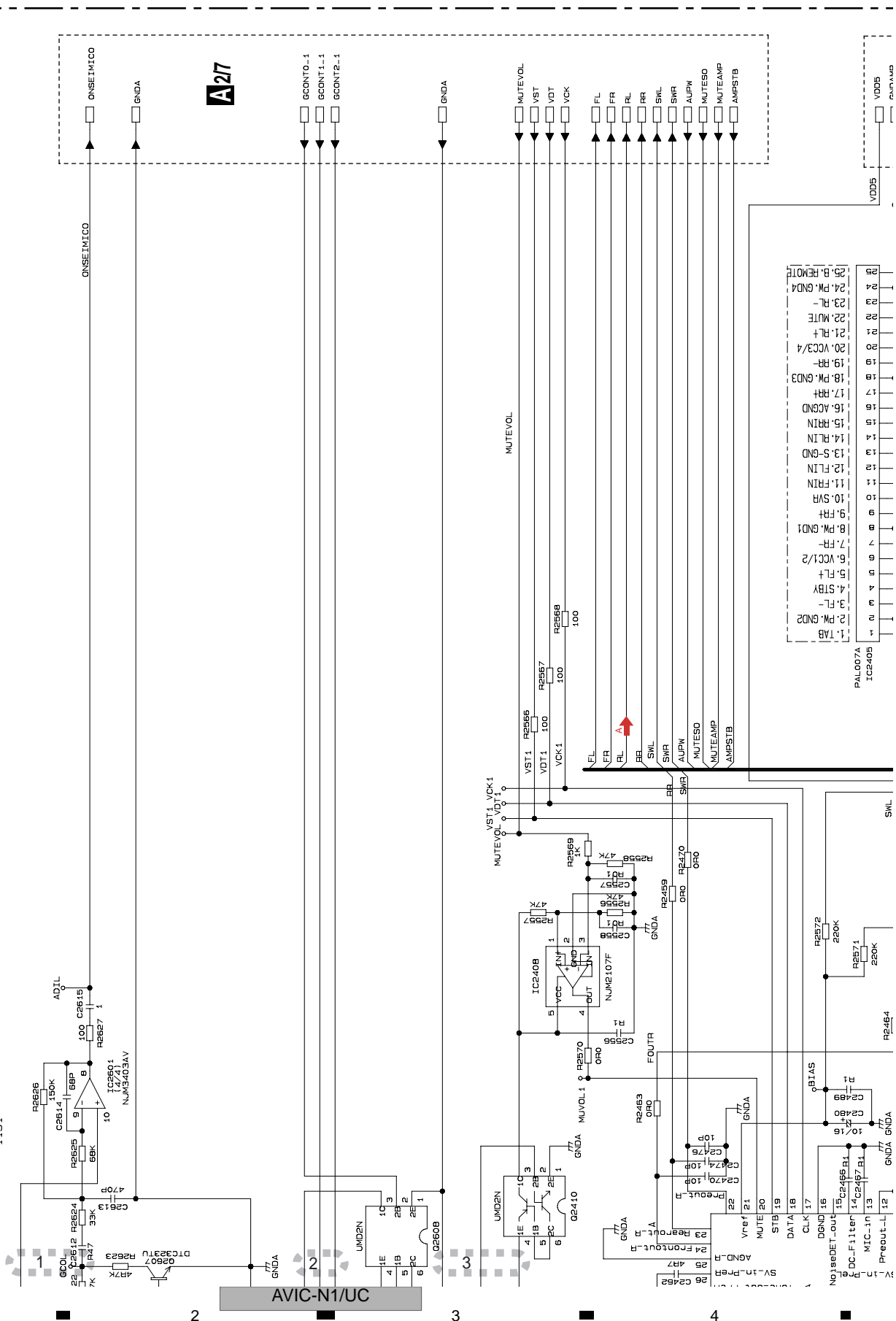
A-a	A-b
<p>1. The first part of the text discusses the importance of maintaining accurate records in a laboratory setting. It emphasizes that proper record-keeping is essential for ensuring the reliability and reproducibility of experimental results. This involves documenting all procedures, reagents, and observations in a clear and concise manner.</p> <p>2. The second part of the text focuses on the role of standardization in laboratory work. It highlights that using standardized protocols and reagents helps to minimize variability and ensures that results are comparable across different experiments and laboratories. This is particularly important in fields where precision and accuracy are critical.</p> <p>3. The third part of the text addresses the challenges of data management in a laboratory environment. It discusses the need for efficient systems to store, organize, and retrieve large volumes of data. This often involves the use of specialized software and databases to facilitate the analysis and interpretation of experimental results.</p> <p>4. The final part of the text concludes by emphasizing the importance of collaboration and communication in a laboratory setting. It notes that sharing knowledge and resources with colleagues can lead to new discoveries and advancements in the field. Regular meetings and discussions are essential for staying up-to-date on the latest research and for addressing any challenges that may arise.</p>	<p>1. The first part of the text discusses the importance of maintaining accurate records in a laboratory setting. It emphasizes that proper record-keeping is essential for ensuring the reliability and reproducibility of experimental results. This involves documenting all procedures, reagents, and observations in a clear and concise manner.</p> <p>2. The second part of the text focuses on the role of standardization in laboratory work. It highlights that using standardized protocols and reagents helps to minimize variability and ensures that results are comparable across different experiments and laboratories. This is particularly important in fields where precision and accuracy are critical.</p> <p>3. The third part of the text addresses the challenges of data management in a laboratory environment. It discusses the need for efficient systems to store, organize, and retrieve large volumes of data. This often involves the use of specialized software and databases to facilitate the analysis and interpretation of experimental results.</p> <p>4. The final part of the text concludes by emphasizing the importance of collaboration and communication in a laboratory setting. It notes that sharing knowledge and resources with colleagues can lead to new discoveries and advancements in the field. Regular meetings and discussions are essential for staying up-to-date on the latest research and for addressing any challenges that may arise.</p>

## A 3/7 CC UNIT (AUDIO)

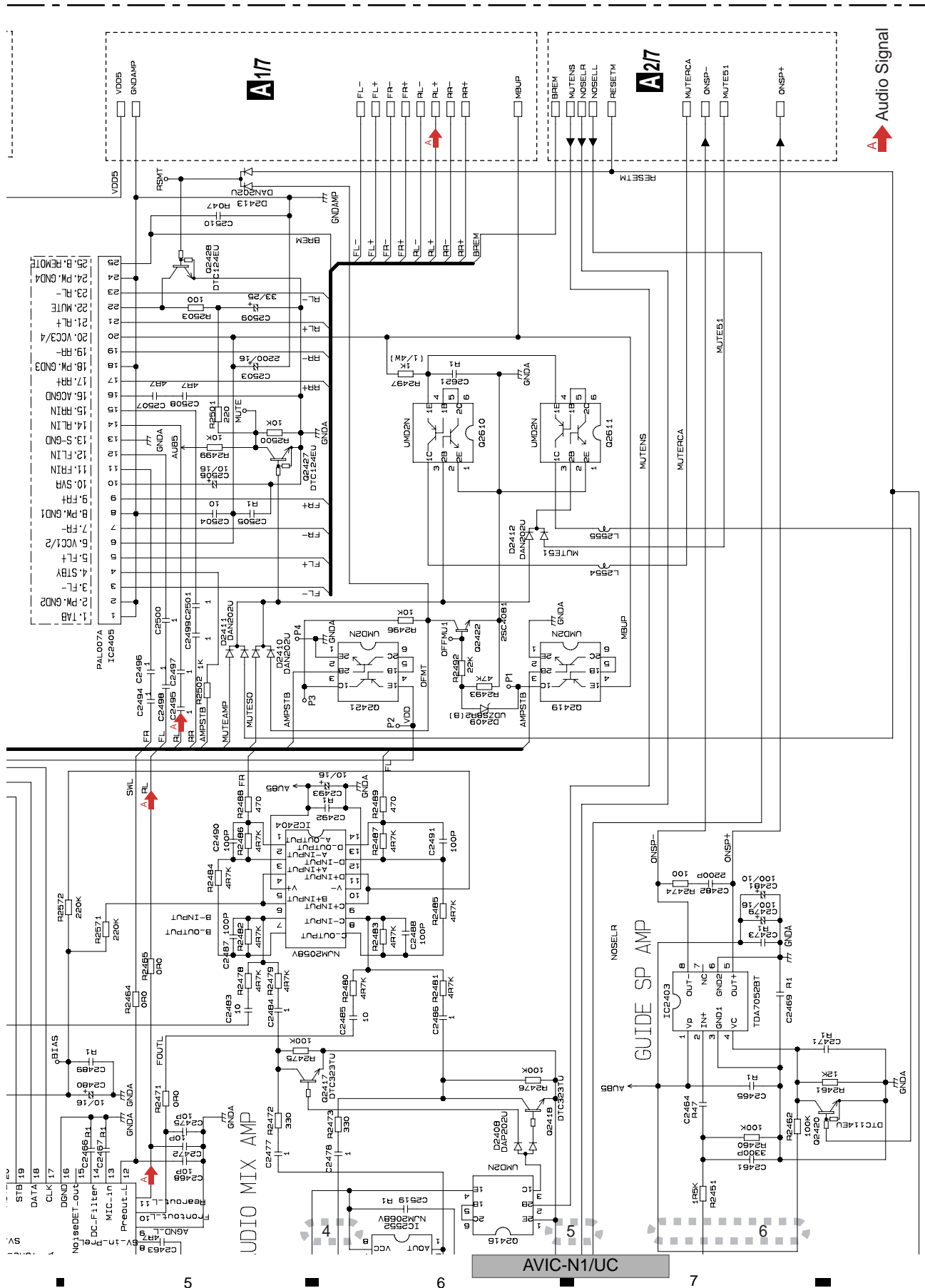
LPF AMP  
1131~

**A 2/7**

AVIC-N1/UC





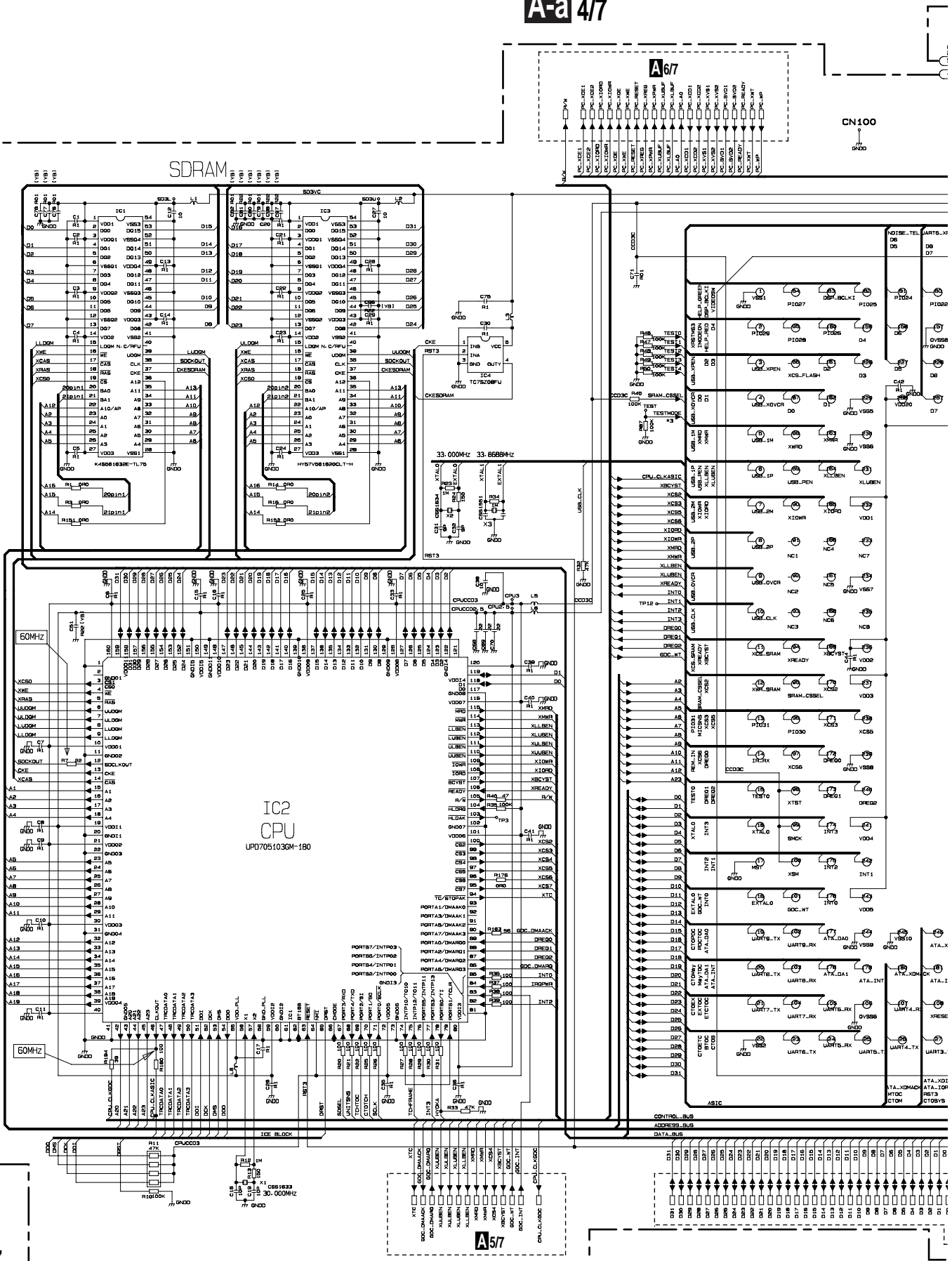


A-b 3/7



3.6 CC UNIT (CPU, ASIC, SDRAM)(GUIDE PAGE)

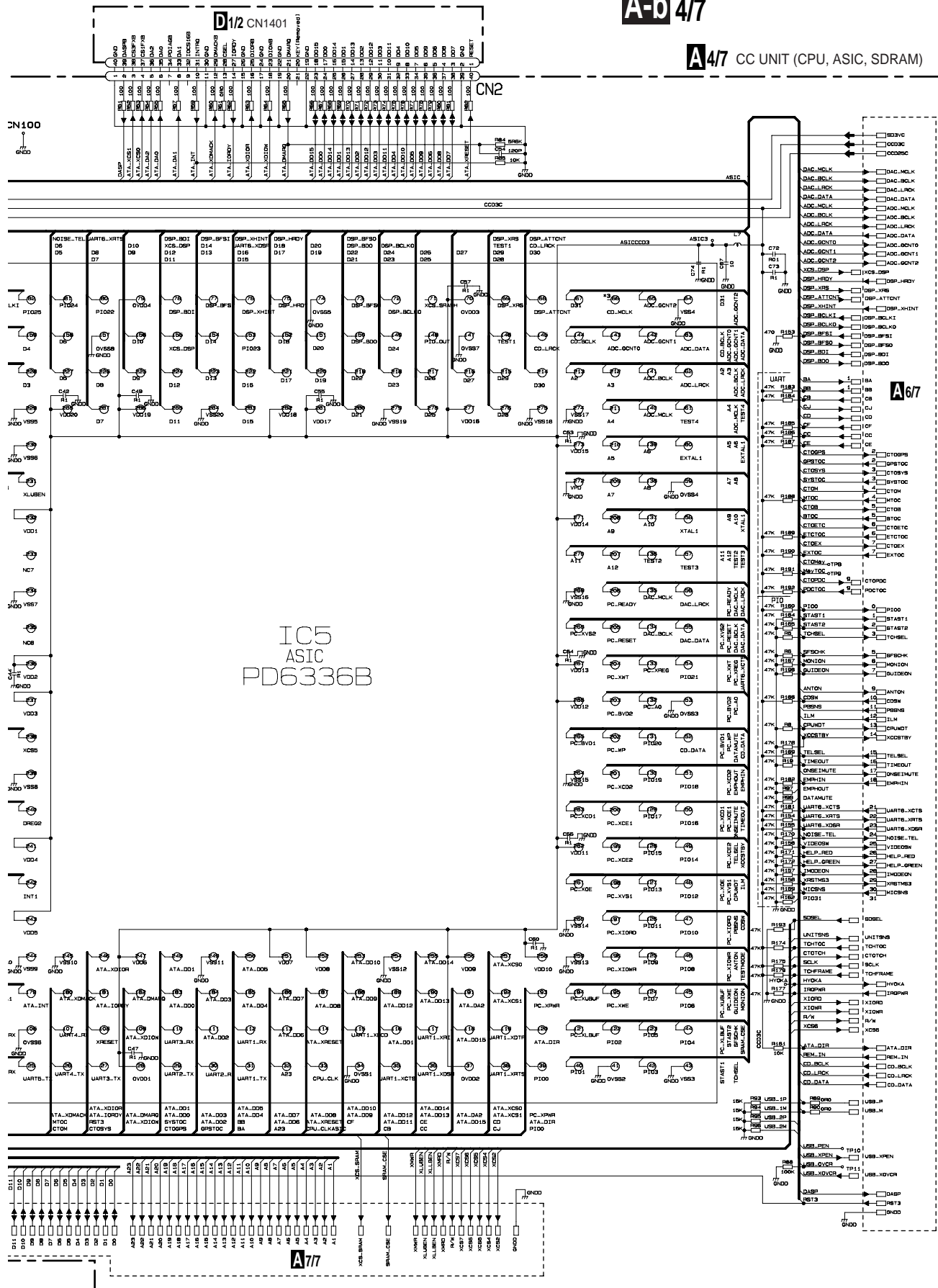
A-a 4/7





A-b 4/7

A4/7 CC UNIT (CPU, ASIC, SDRAM)





**A-b 4/7**

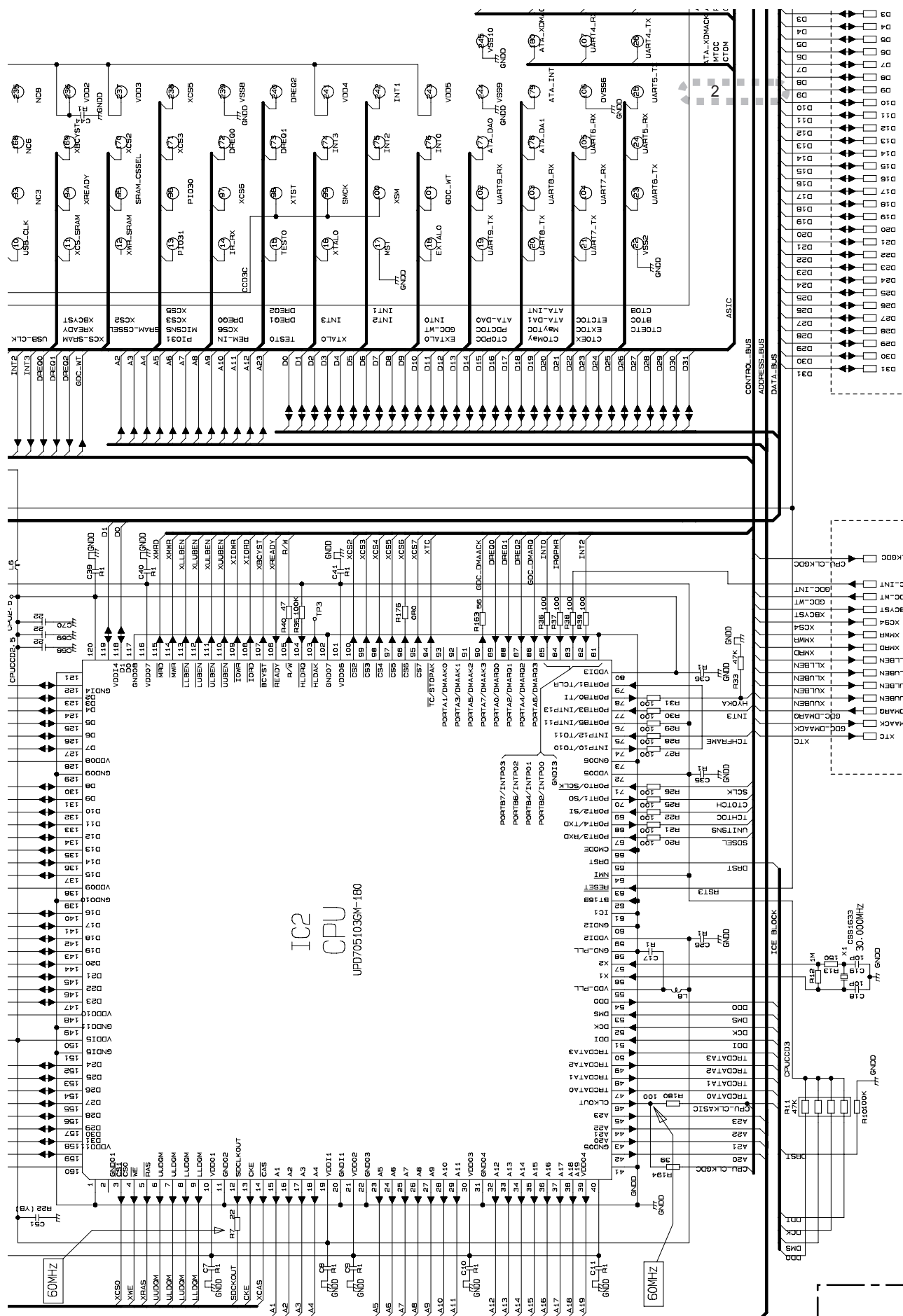
A 6/7

A-a A-b

SDRAM

**A-a 4/7**





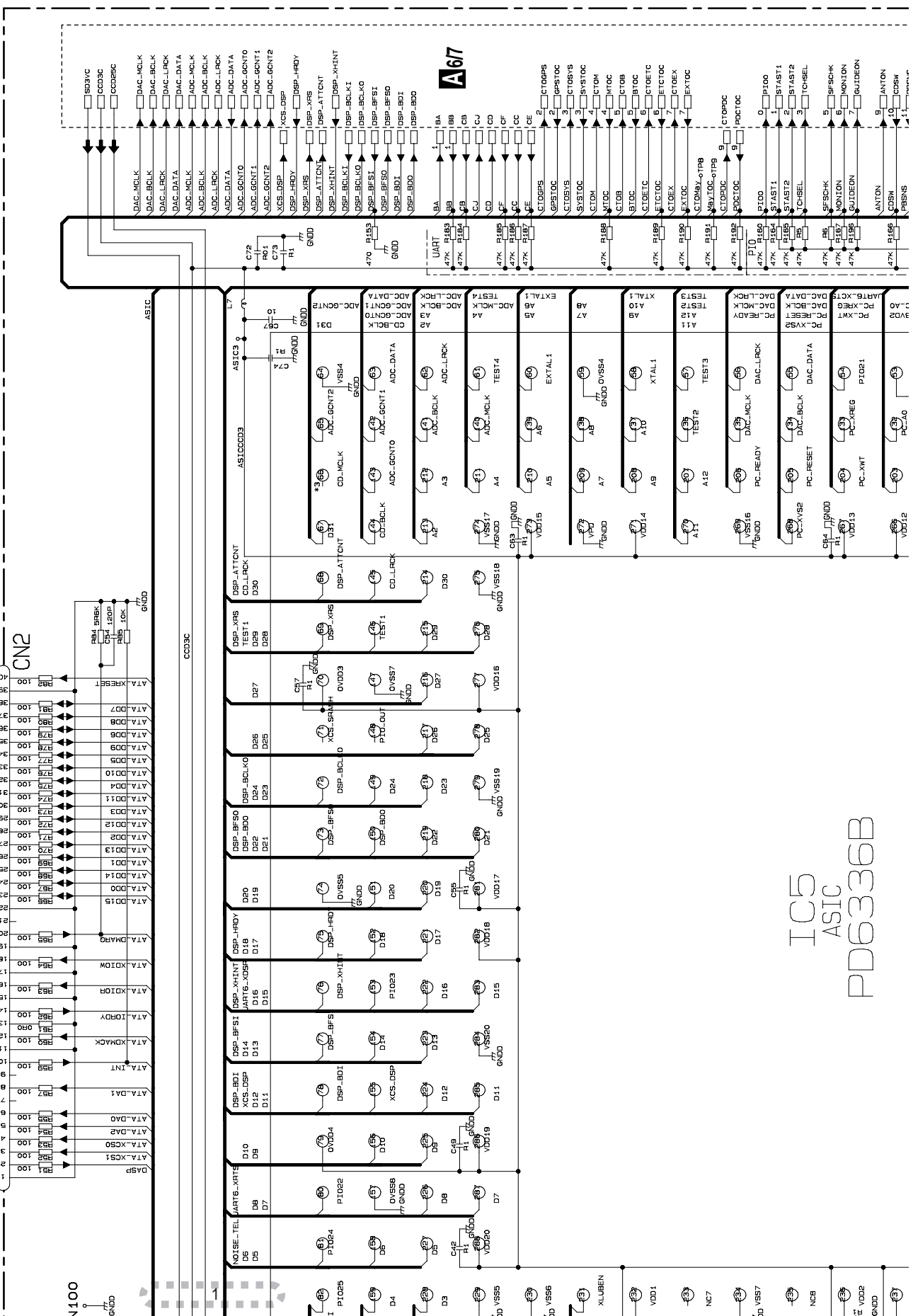


A B C D E F

A47 CC UNIT (CPU, ASIC, SDRAM)

D1/2 CN1401

A-b 4/7



IC5  
ASIC  
PD6336B

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

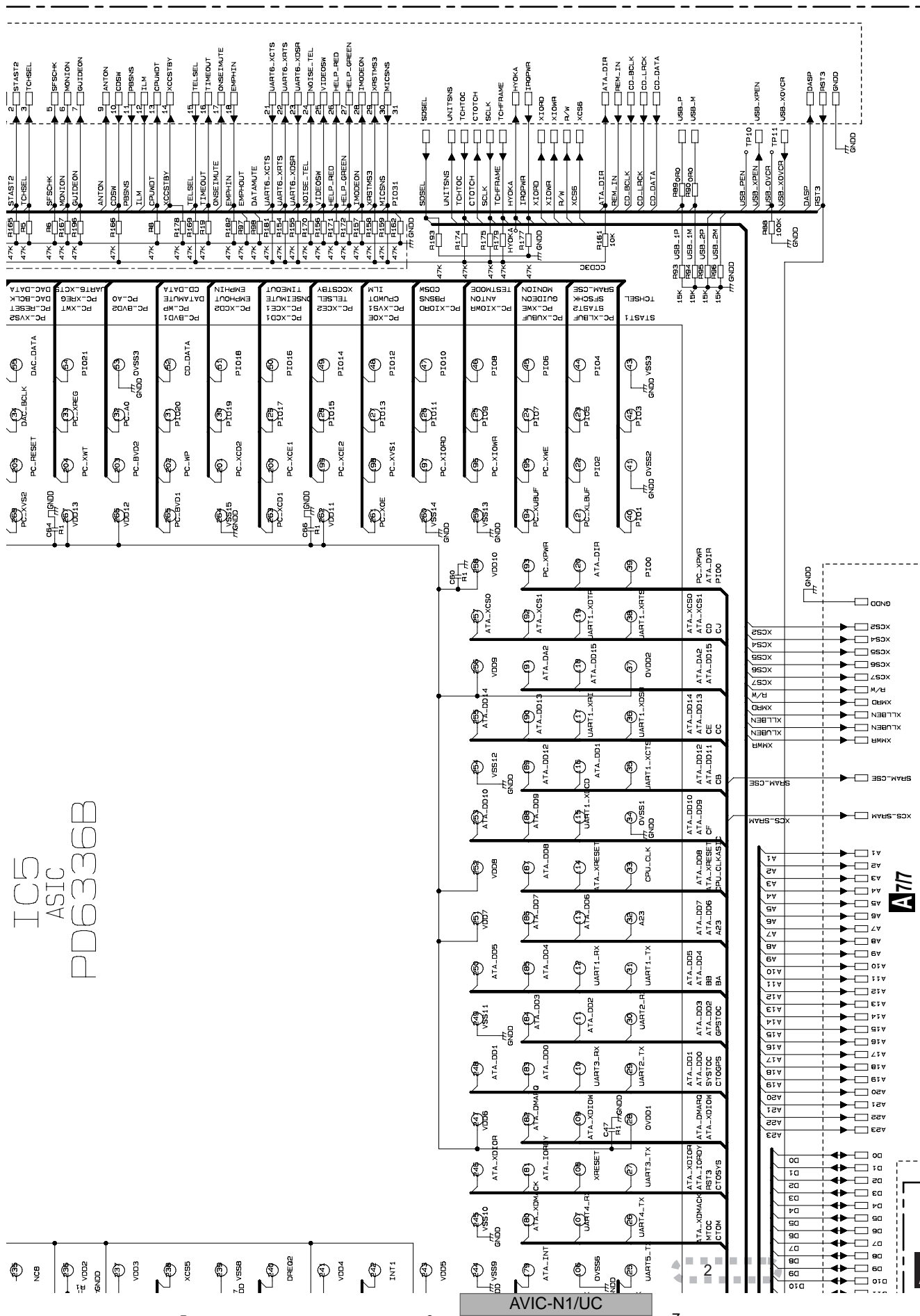
333

334

335



# IC5 ASIC PD6336B



A-b 4/7



# 3.7 CC UNIT (GRAPHIC)

A

## A5/7 CC UNIT (GRAPHIC)

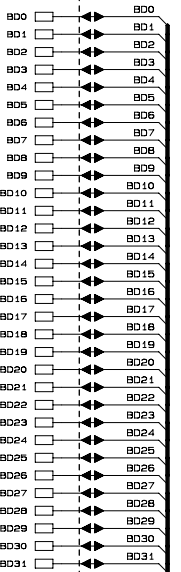
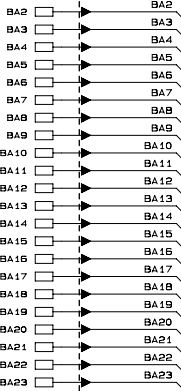
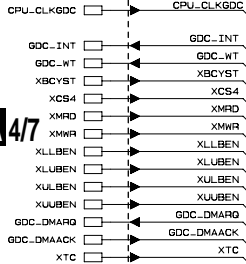
B

C

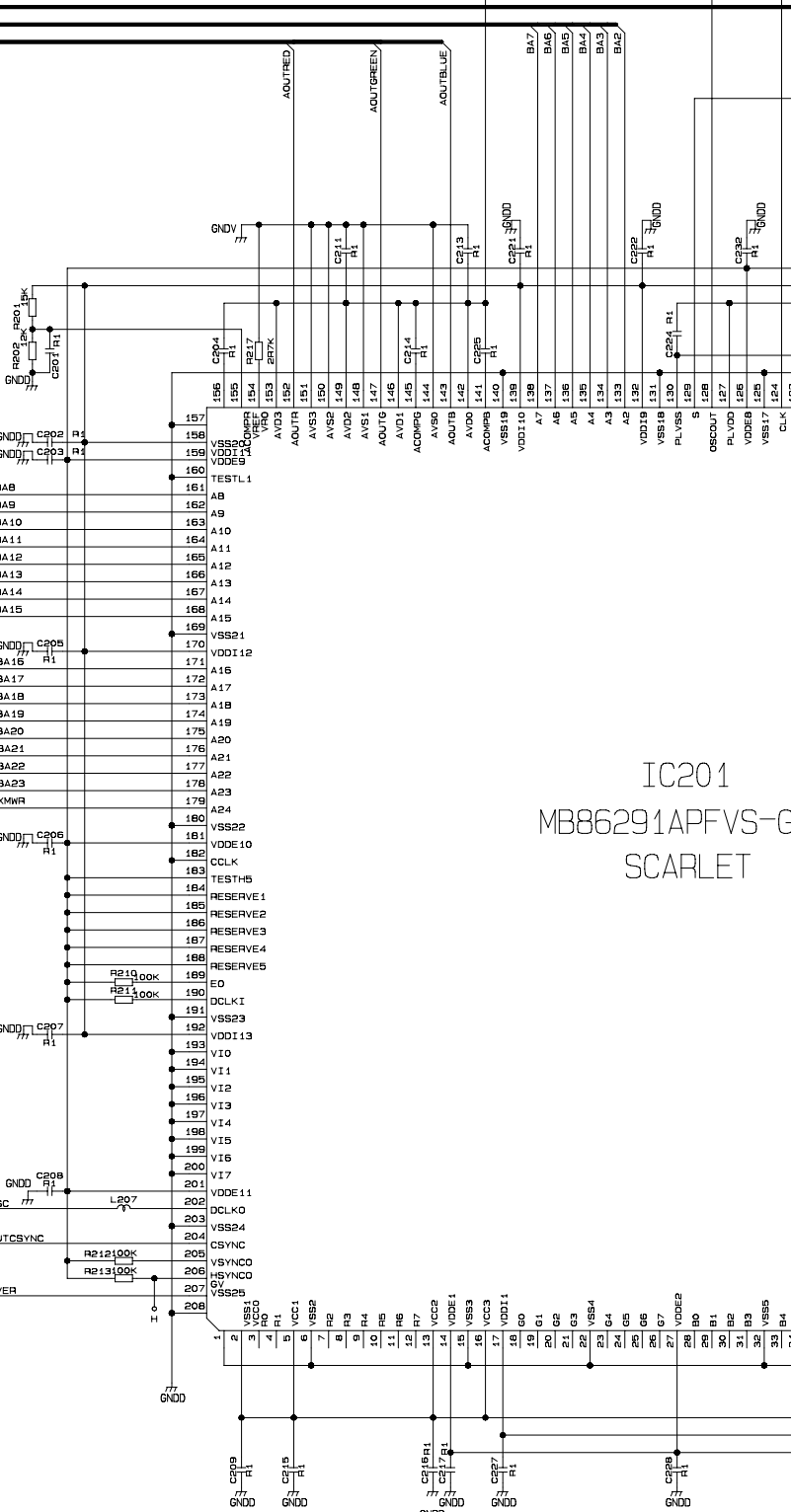
D

E

F



HOST I/F  
HOST CPU\_BUS ADDRESS[24:2]  
HOST CPU\_BUS DATA[31:0]



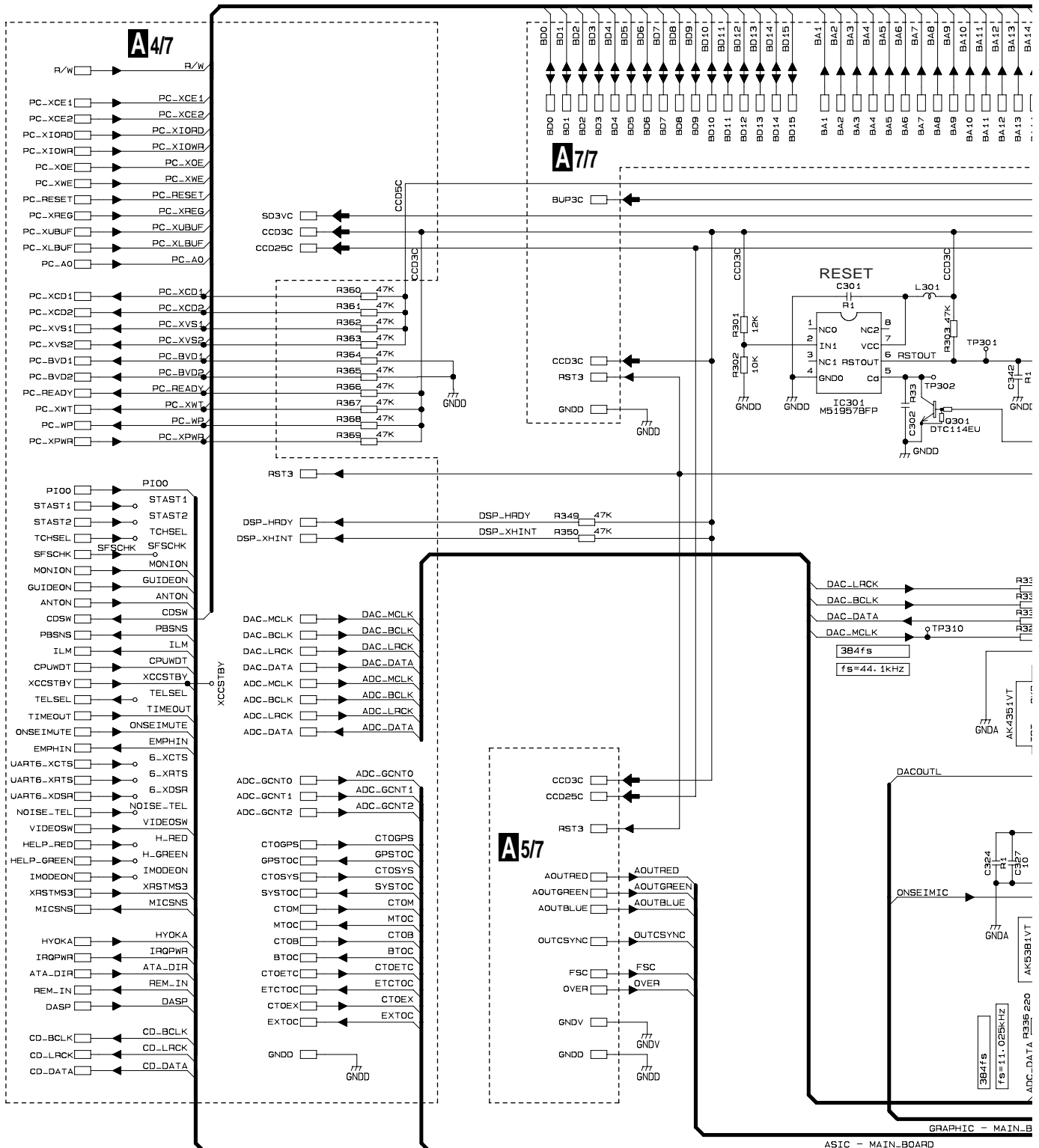






# 3.8 CC UNIT (MAIN, CC CORE I/F)

## A6/7 CC UNIT (MAIN, CC CORE I/F)







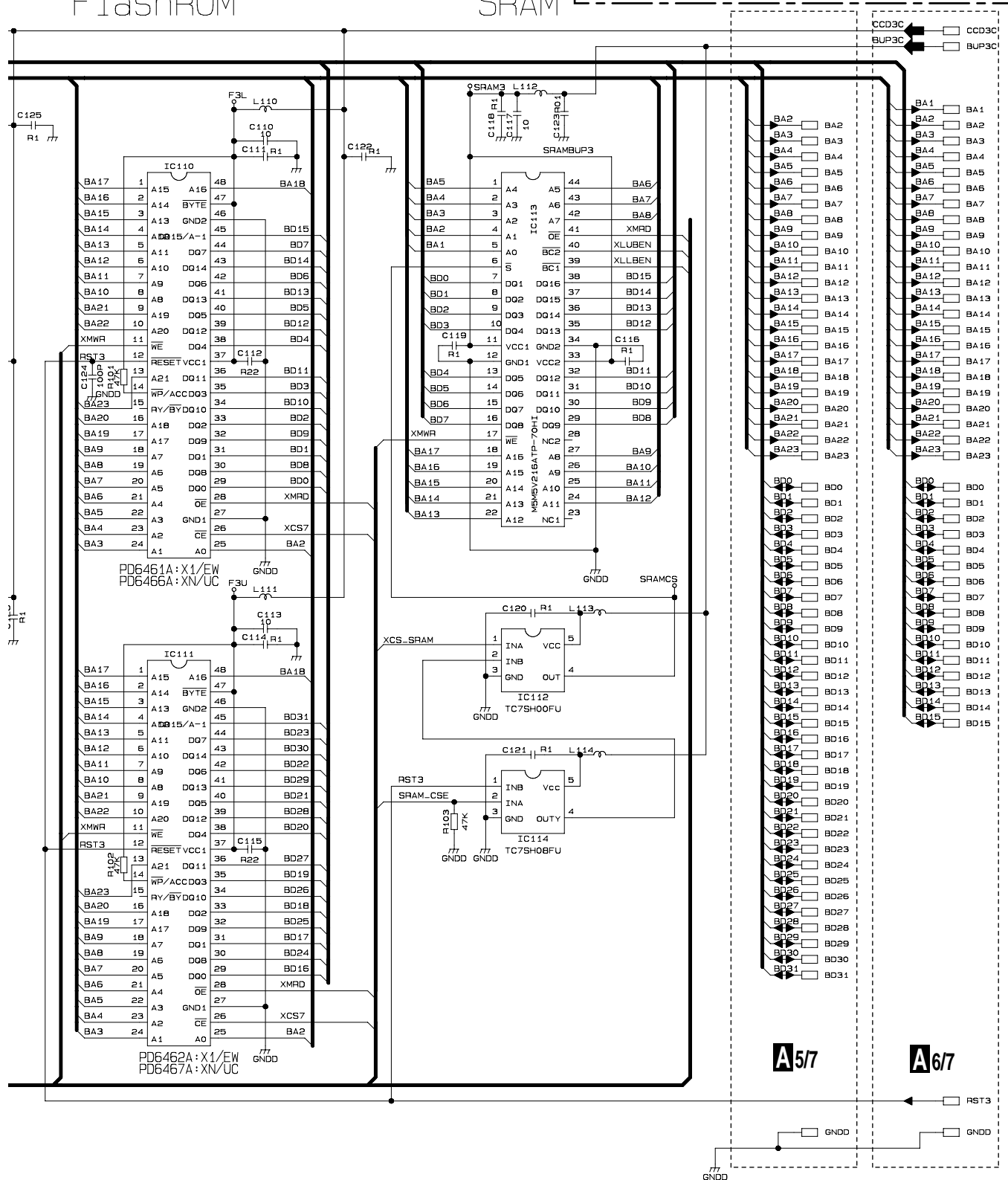






FlashROM

SRAM

**A77** CC UNIT (ROM, SRAM, BUS-BUFFER)**A5/7****A6/7****A7/7**



### 3.10 KEYBOARD PCB

A

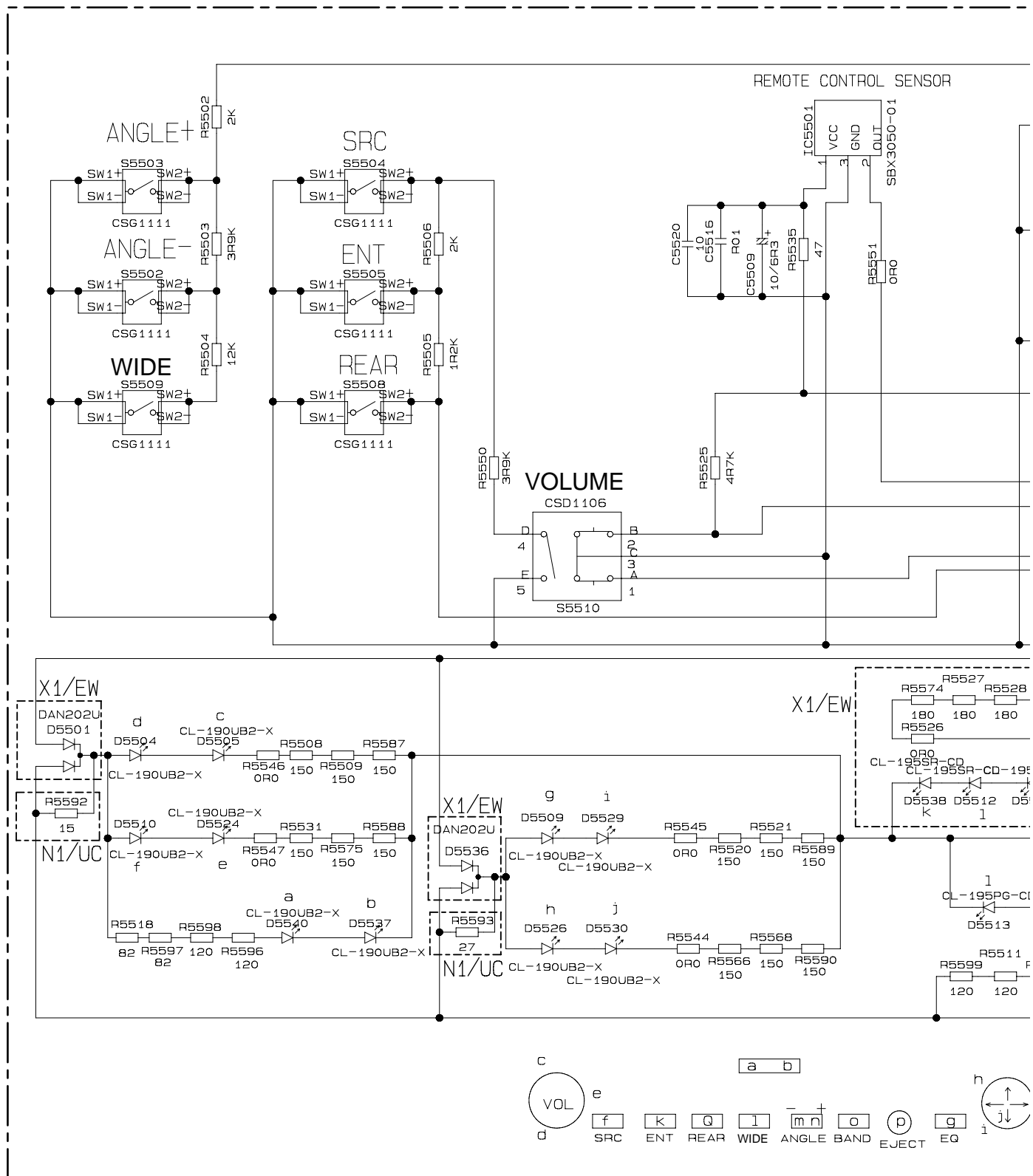
B

C

D

E

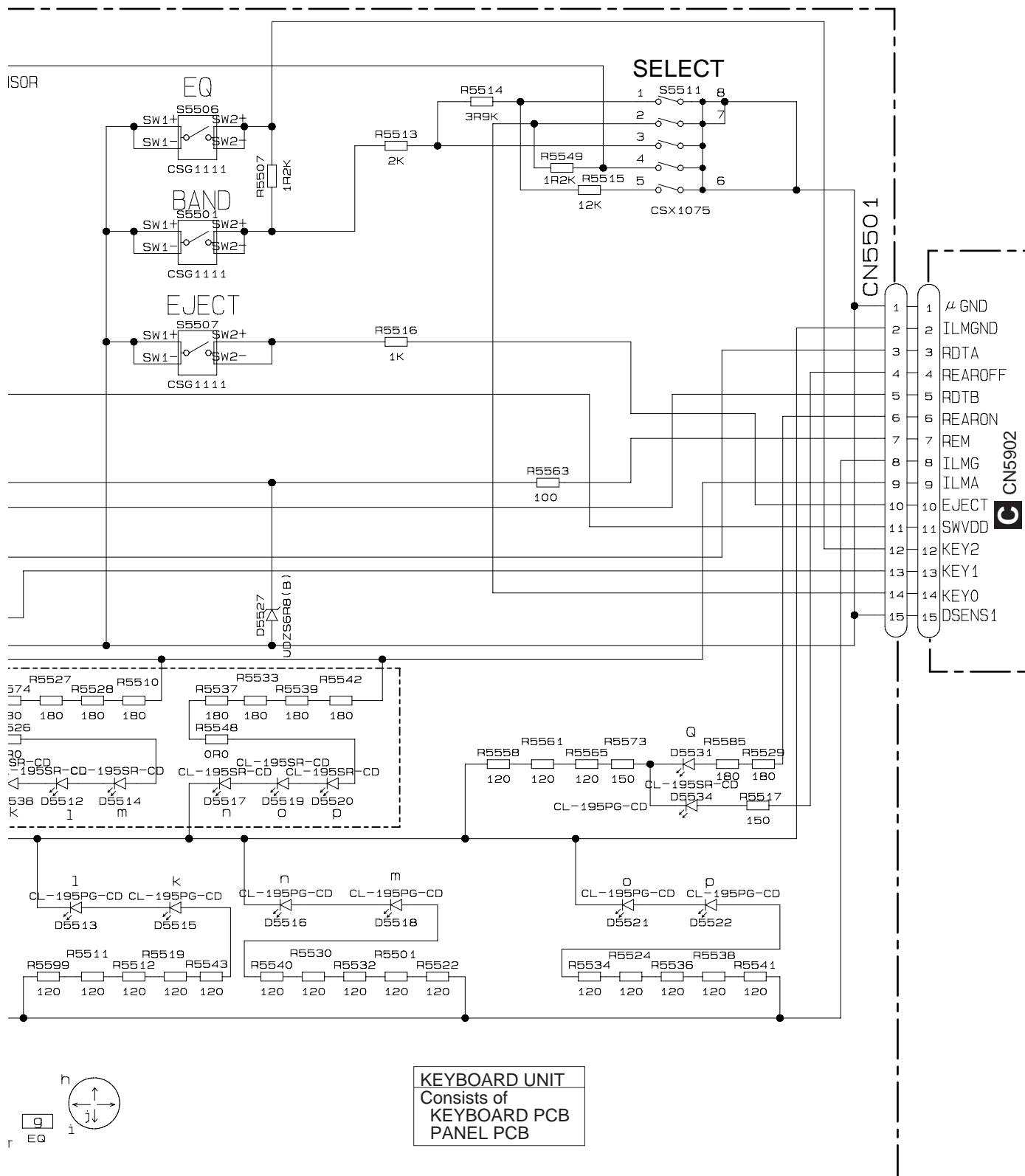
F



B

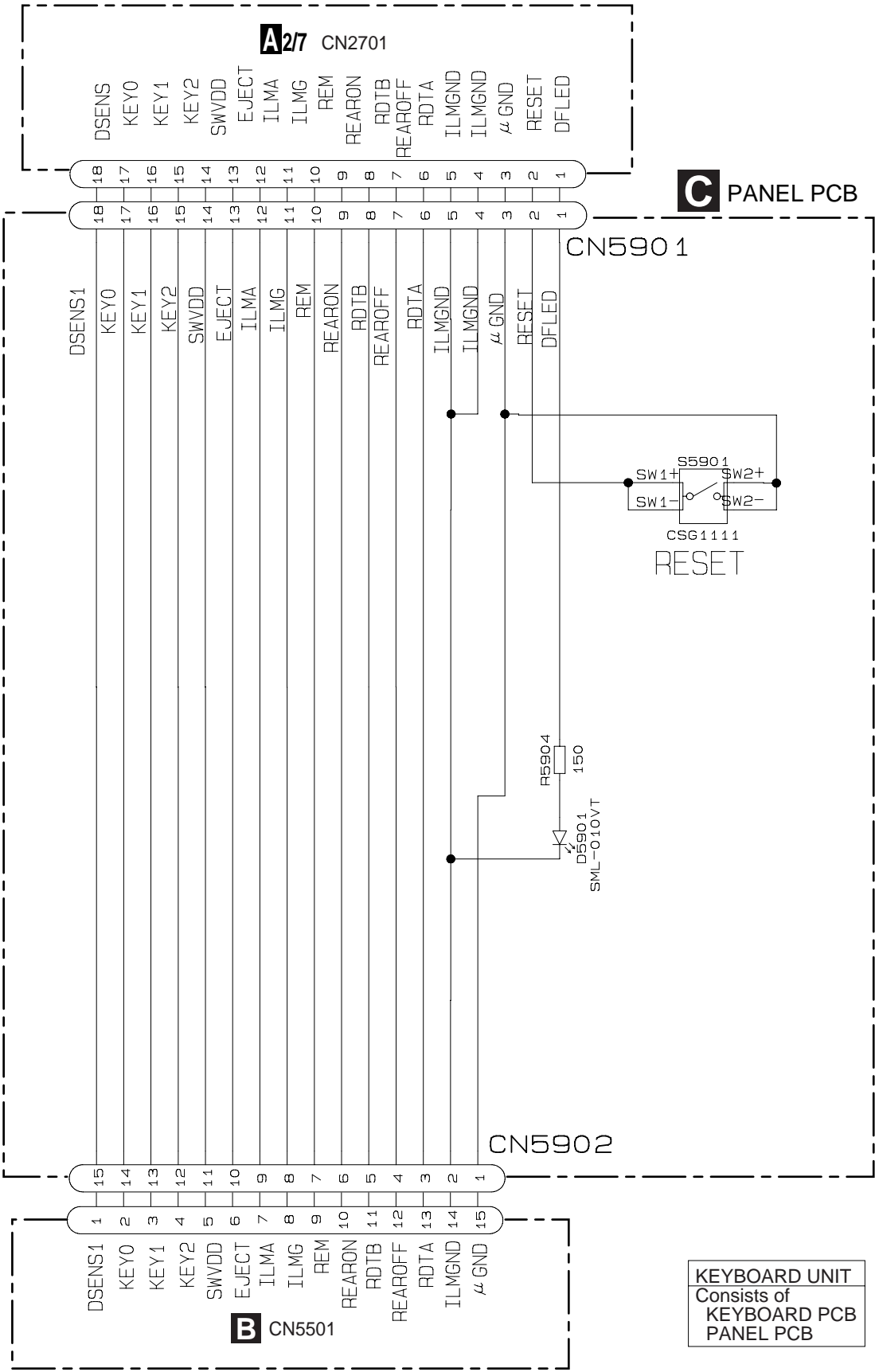


# B KEYBOARD PCB





3.11 PANEL PCB





■

5

■

6

■

7

■

8

■

A

■

B

■

C

■

D

■

E

■

F

■

5

■

6

AVIC-N1/UC

■

7

■

8

75

■



## 4

D

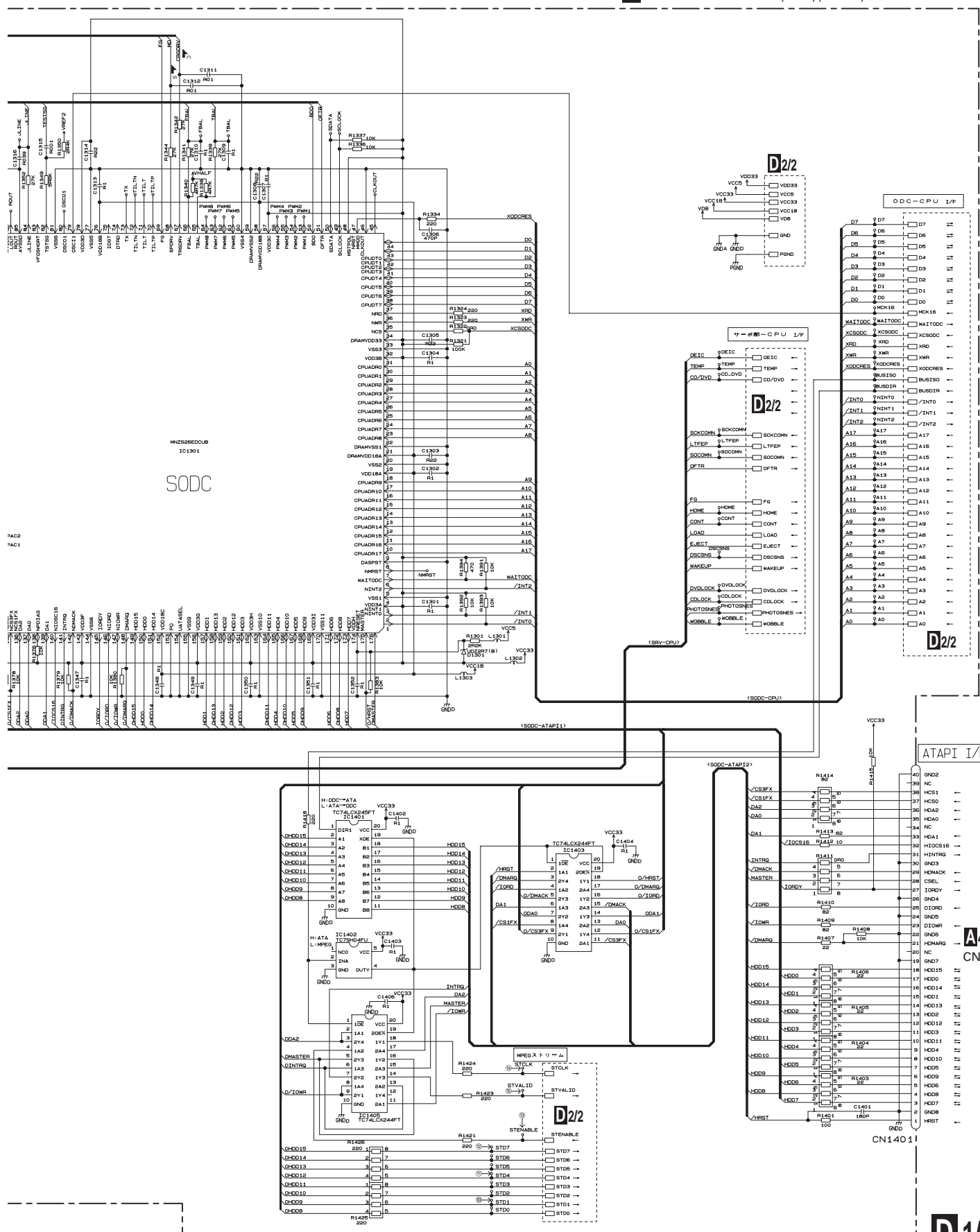


**F**



D-b 1/2

D1/2 DVD CORE UNIT(MS3)(SODC)



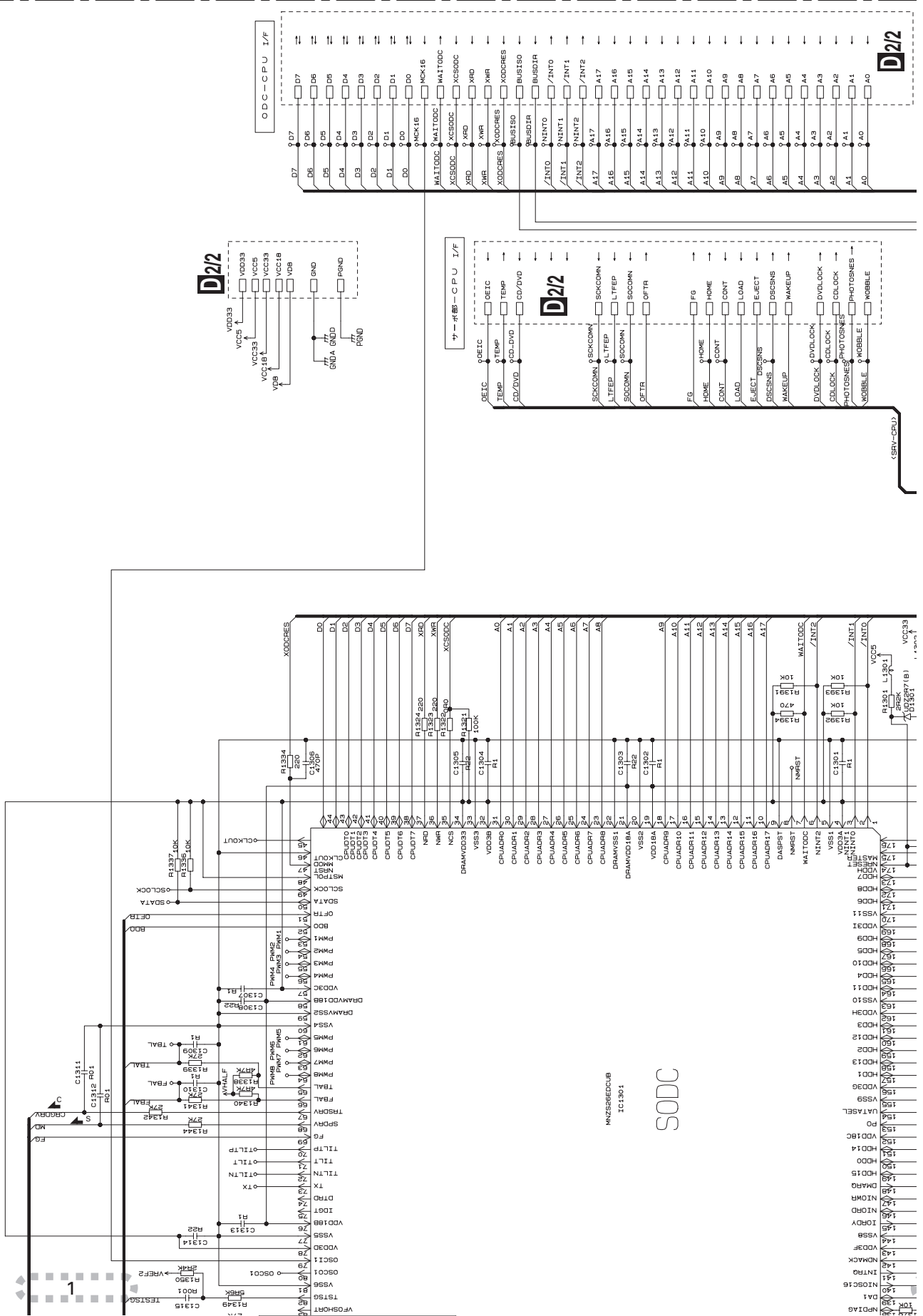














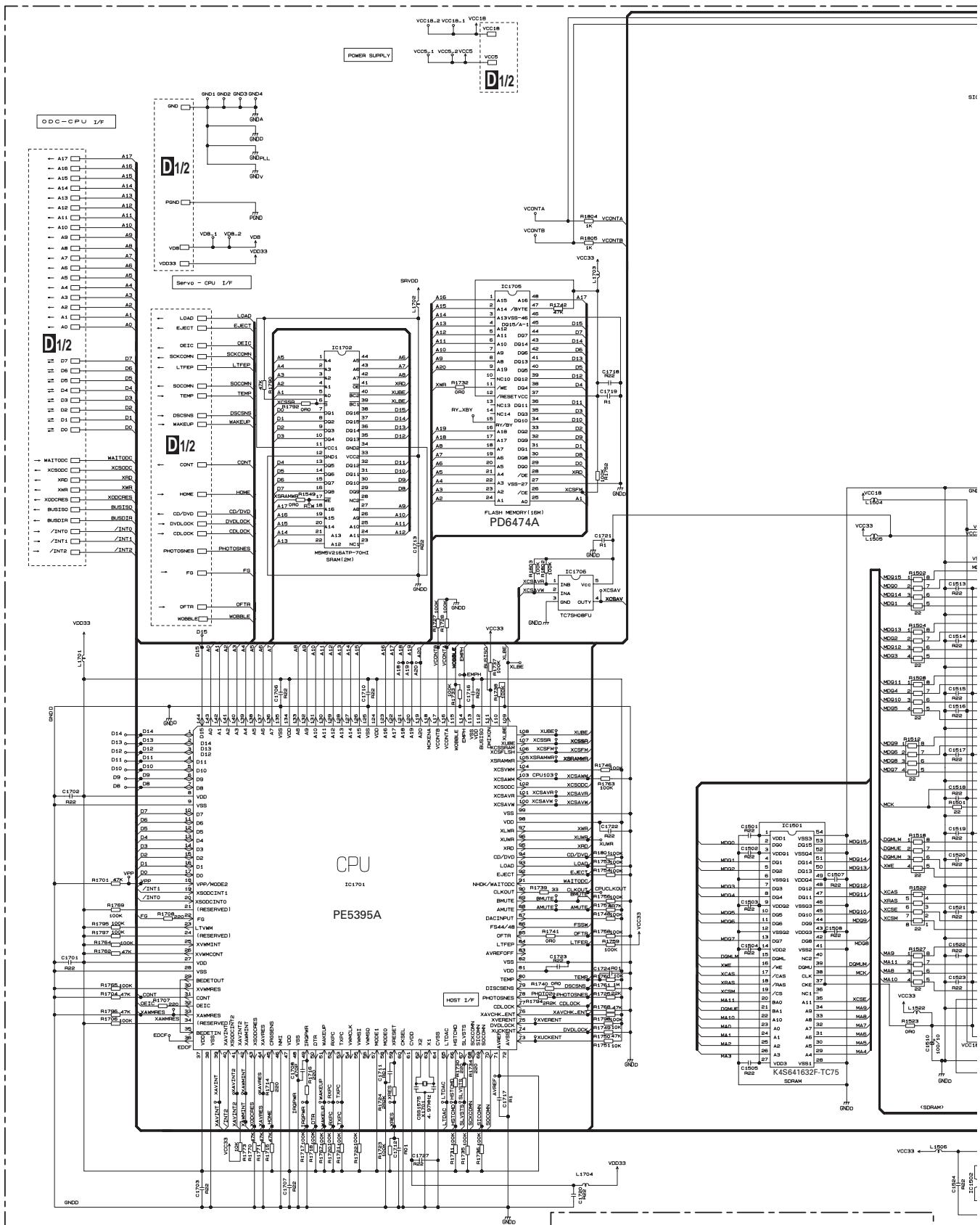


**D-b 1/2**



### 3.13 DVD CORE UNIT(MS3)(CPU)(GUIDE PAGE)

D-a 2/2





**D2/2** DVD CORE UNIT(MS3)(CPU)



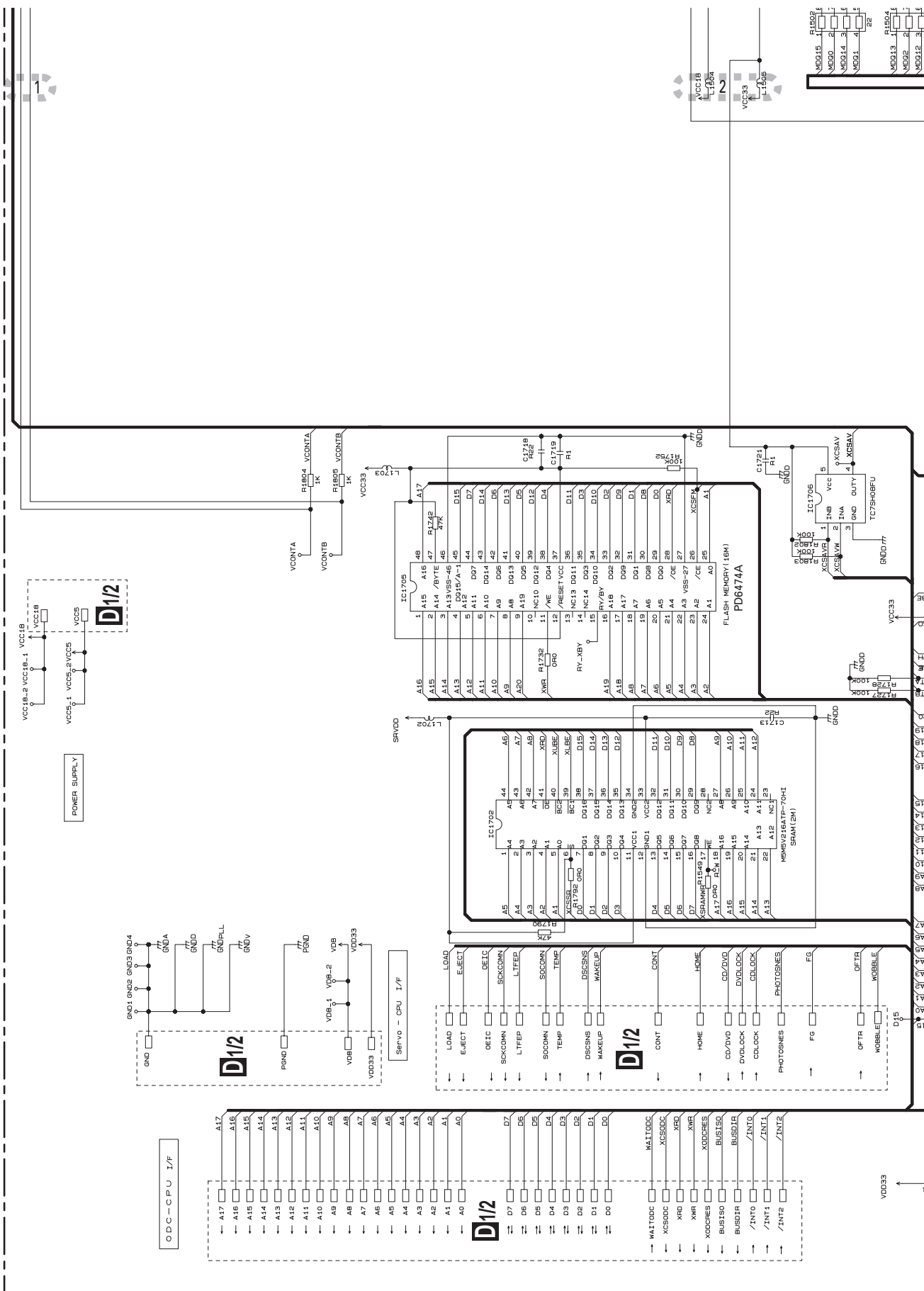


**D-b 2/2**

D-a	D-b
(2/2)	(2/2)

**D-a 2/2**

AVIC-N1/UC

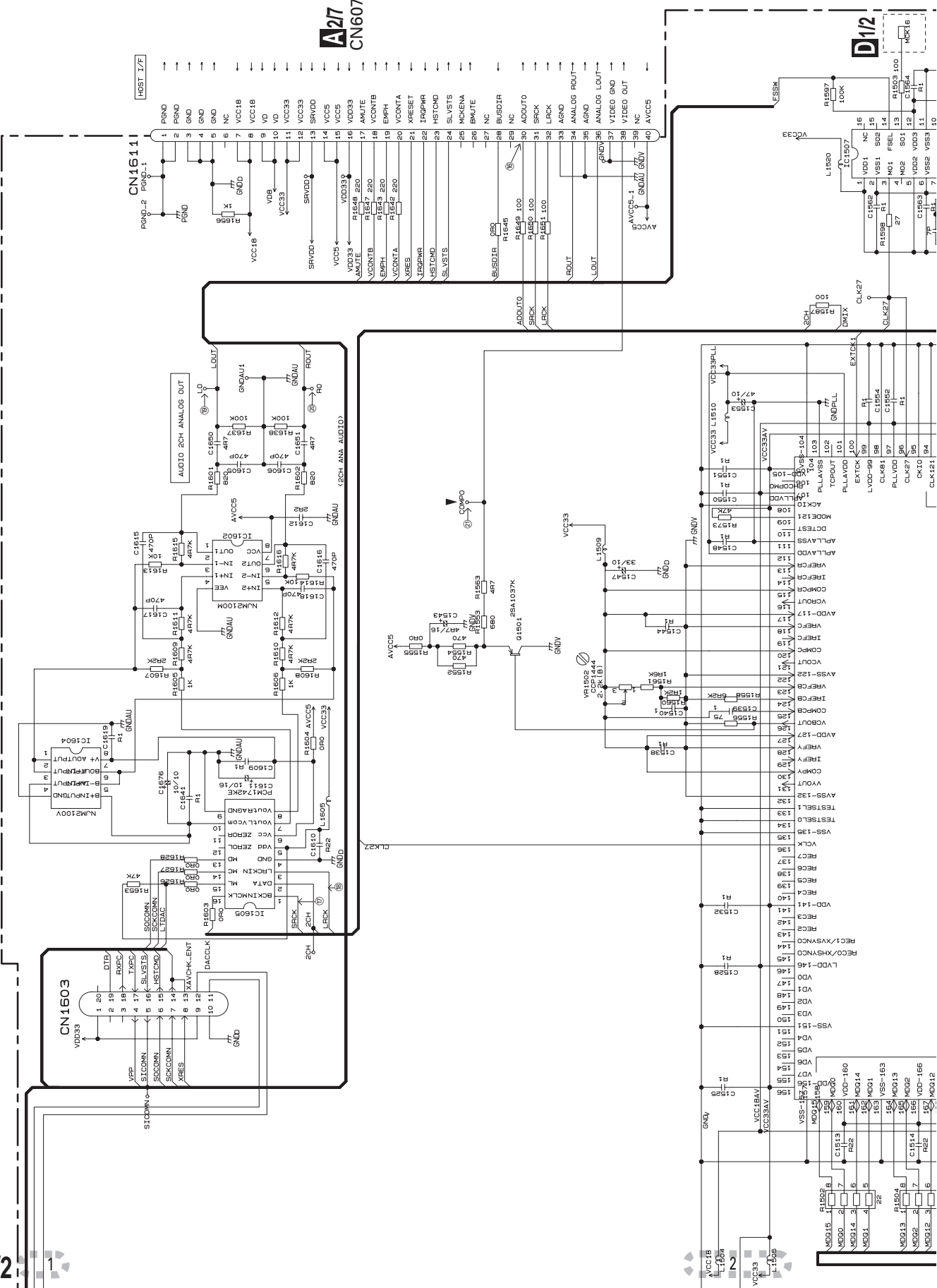




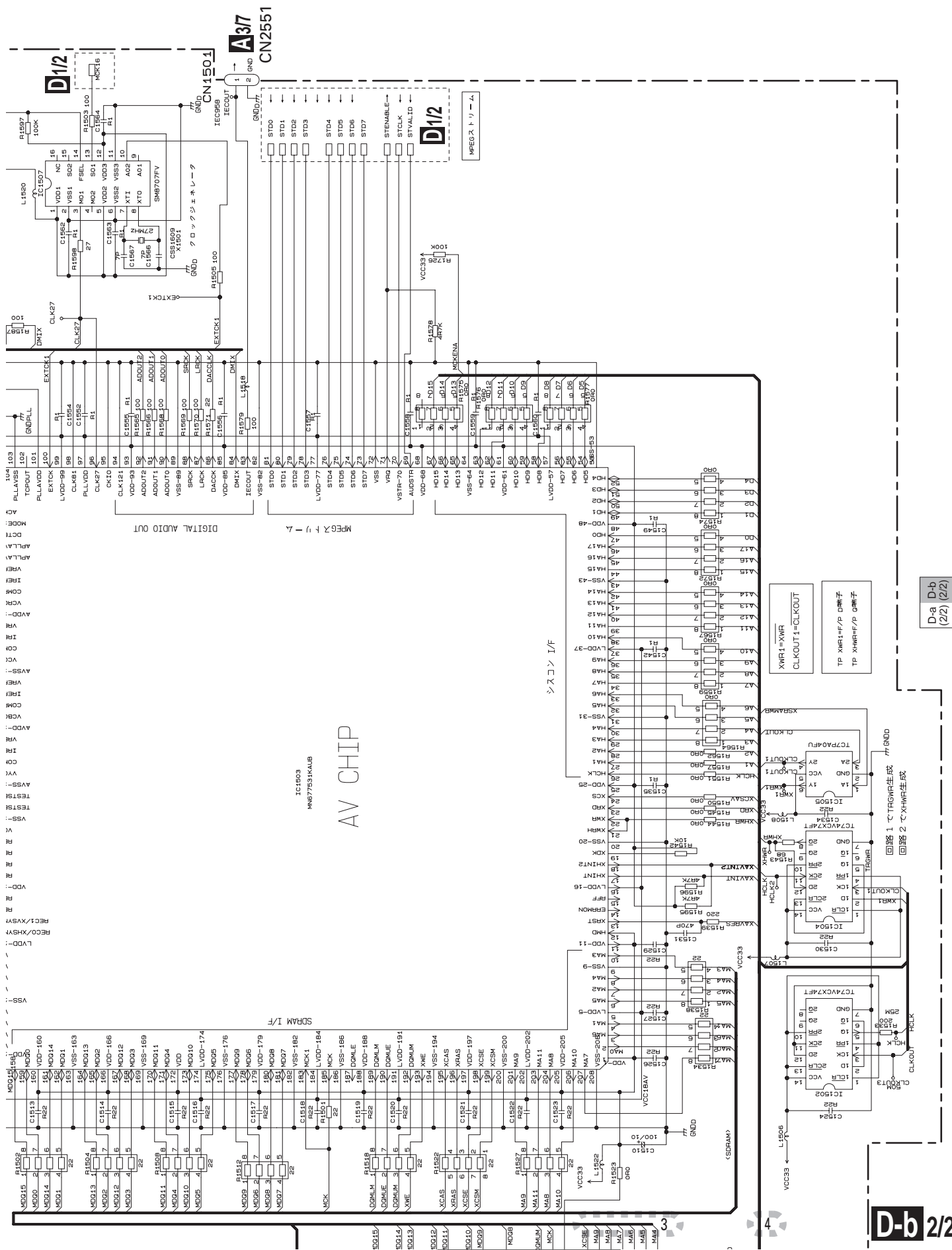




**D-b 2/2**







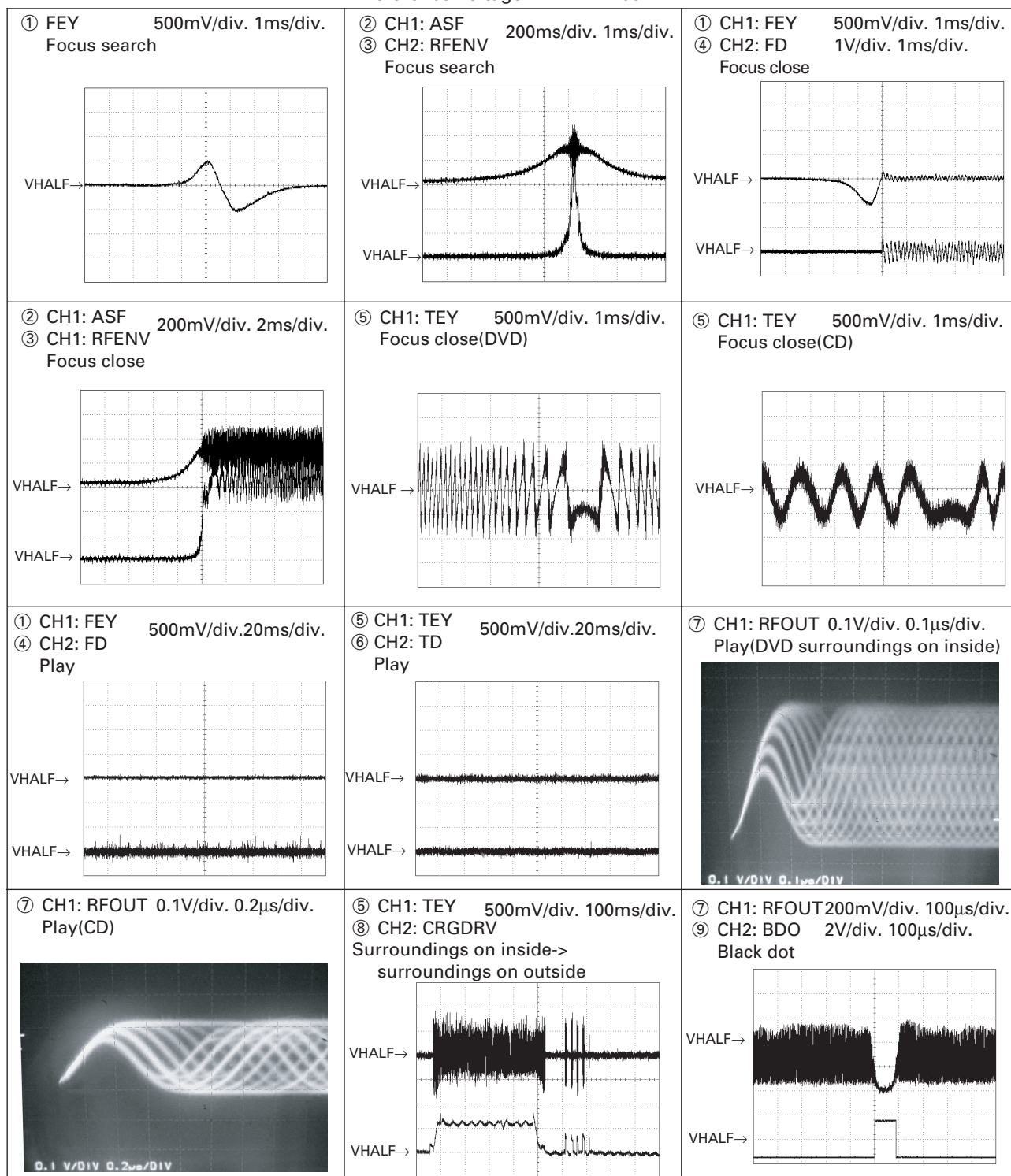
D-b 2/2



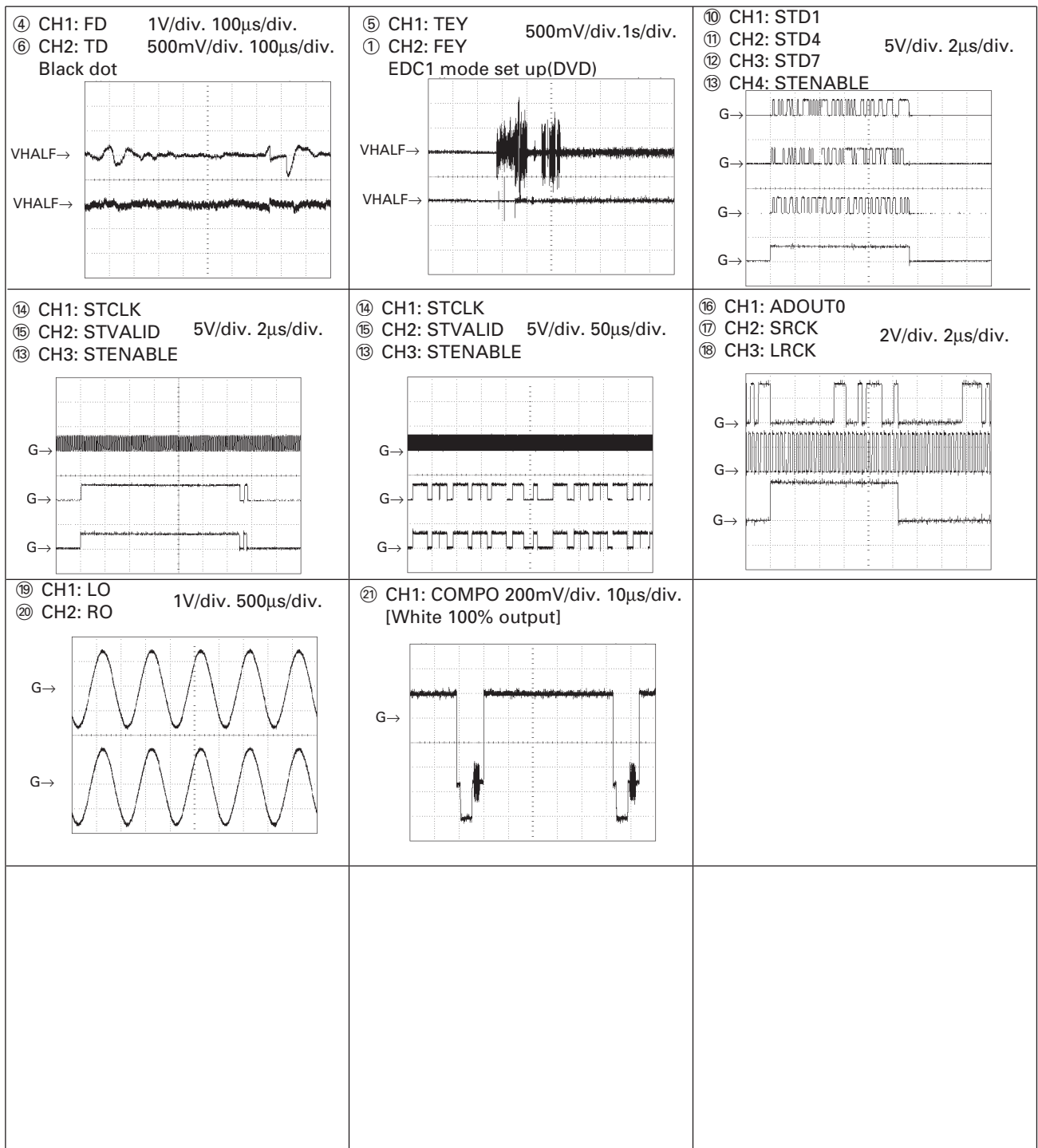
# Waveforms

Note:1. The encircled number denote measuring pointes in the circuit diagram.

2. Reference voltage VHALF : 1.65V





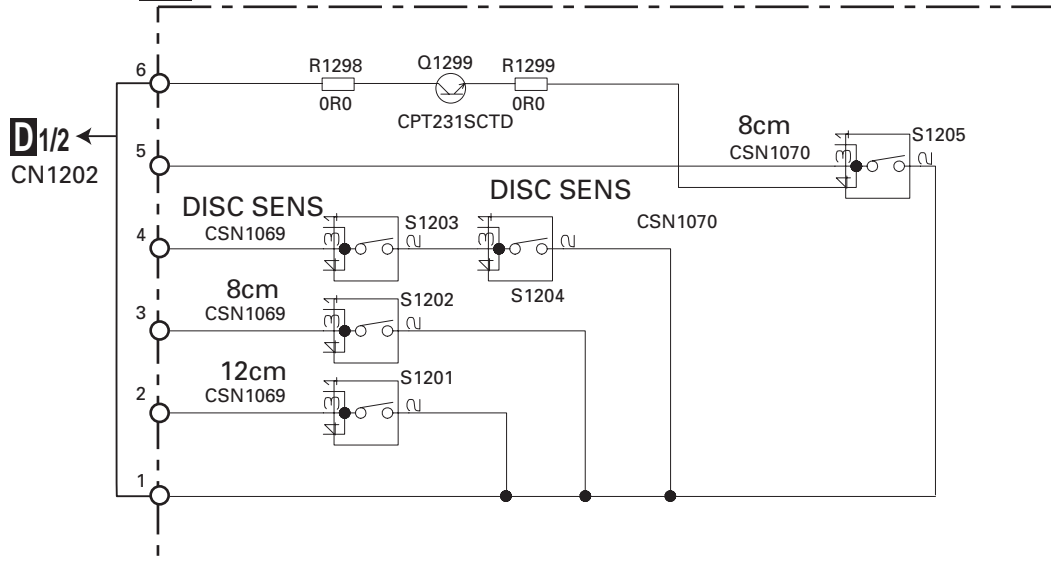




### 3.14 COMPOUND UNIT(A) AND COMPOUND UNIT(B)

A

#### **E** COMPOUND UNIT(A)



B

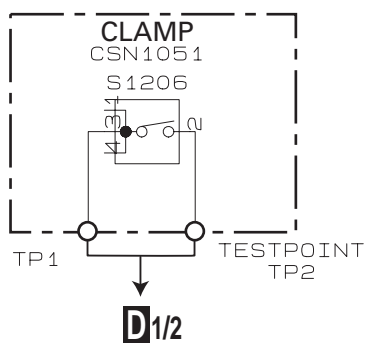
C

D

E

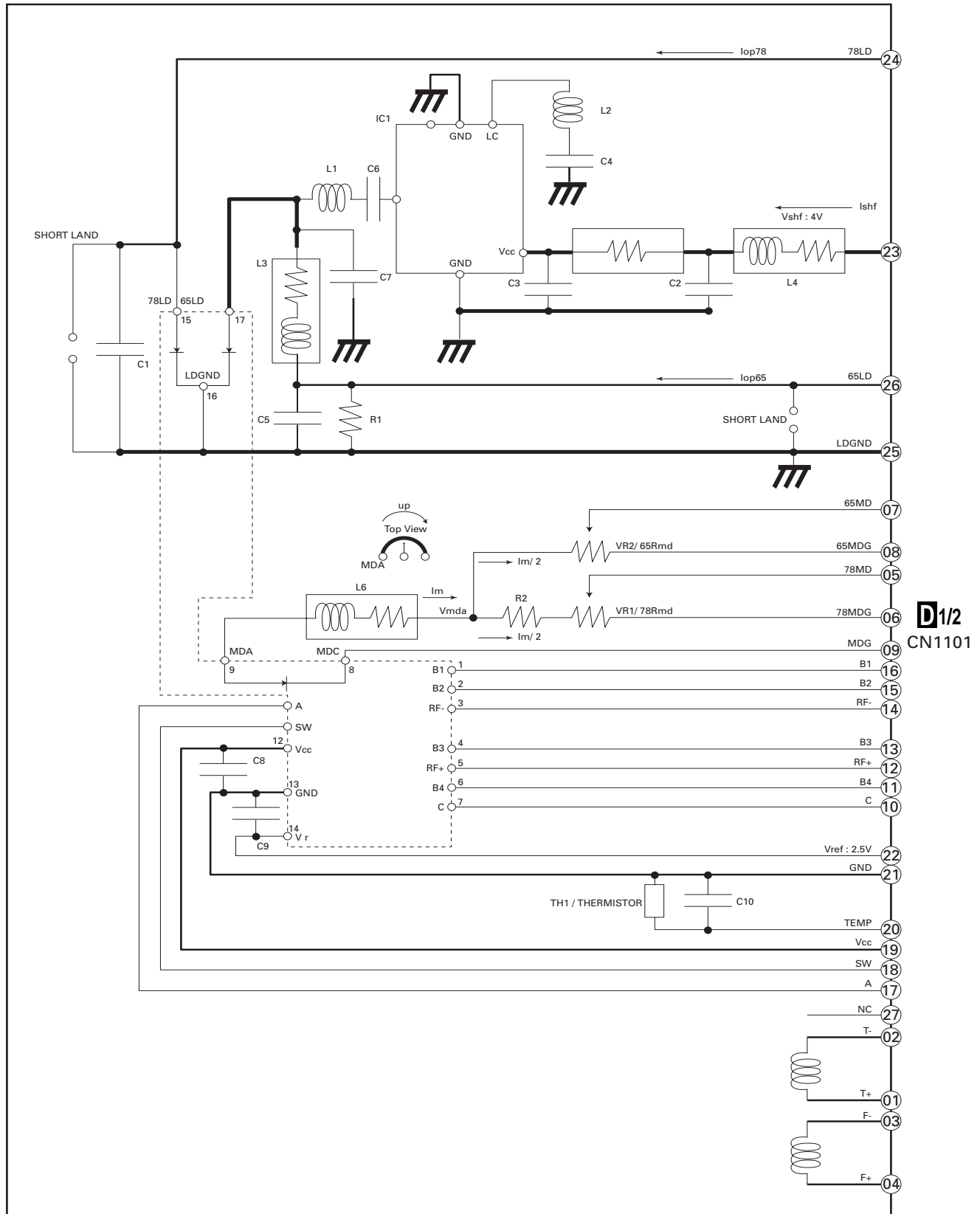
F

#### **F** COMPOUND UNIT(B)





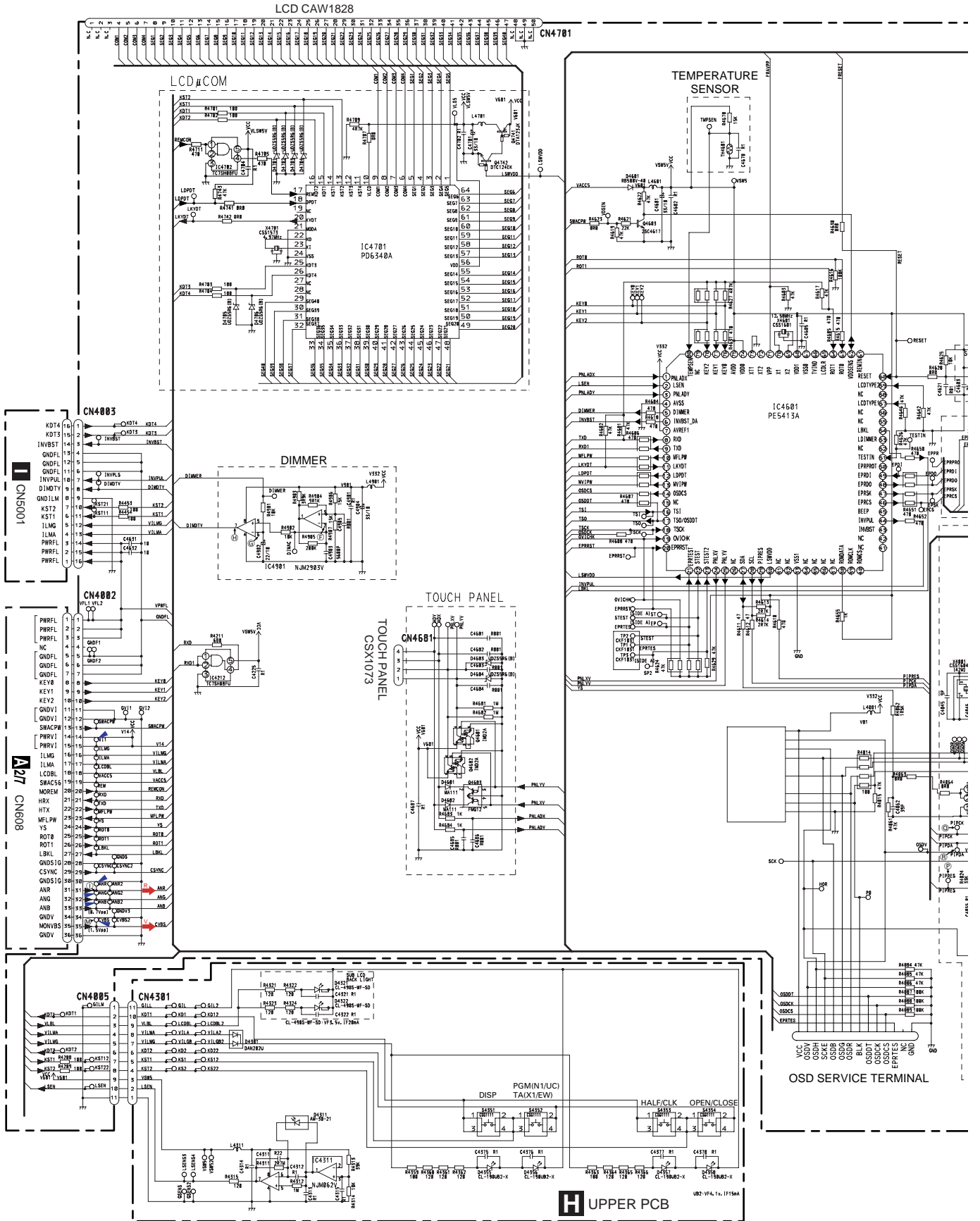
### 3.15 PU UNIT(REFERENCE)





### 3.16 MONITOR PCB AND UPPER PCB(GUIDE PAGE)

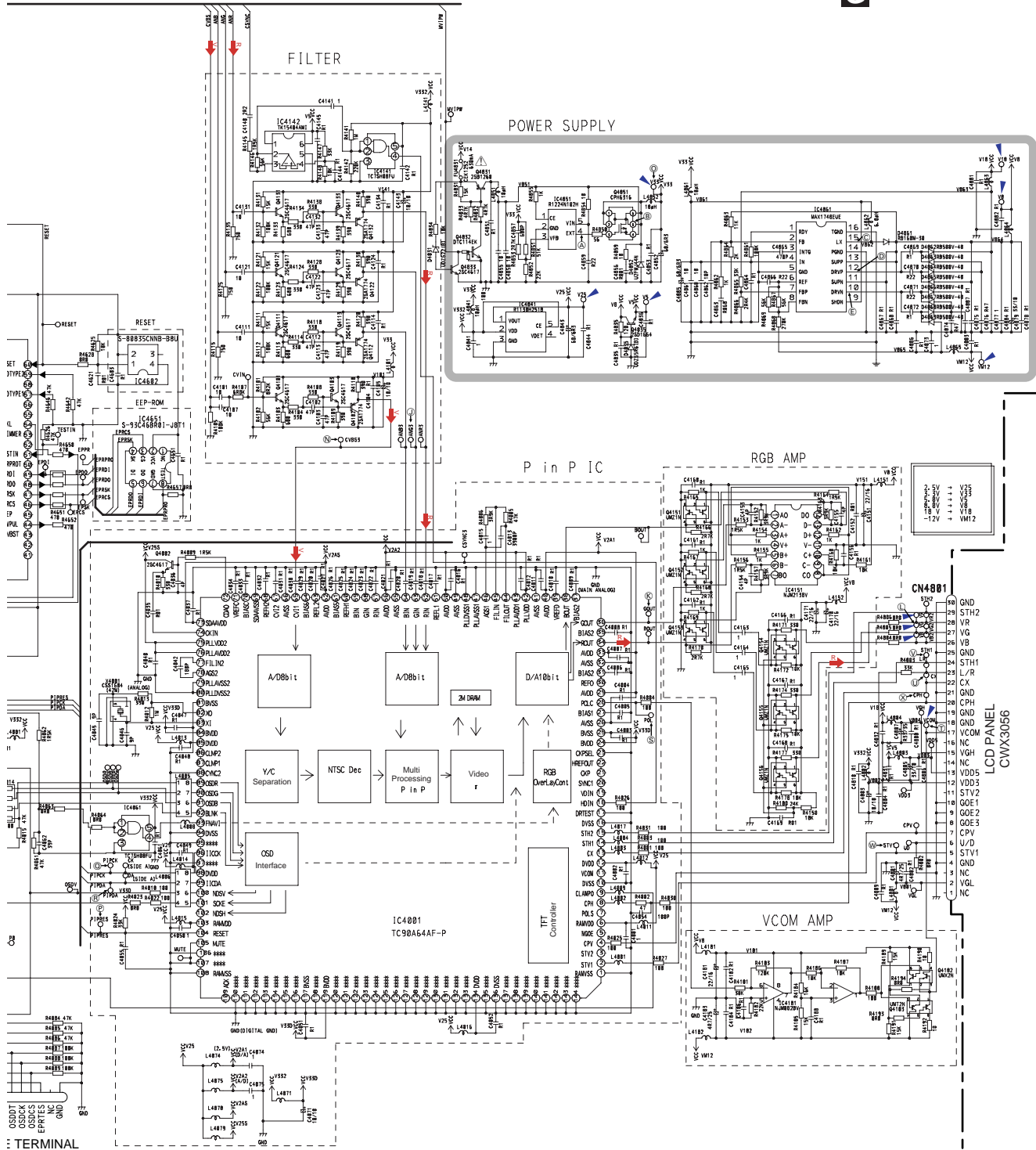
G-a



UPPER PCB



**G** MONITOR PCB



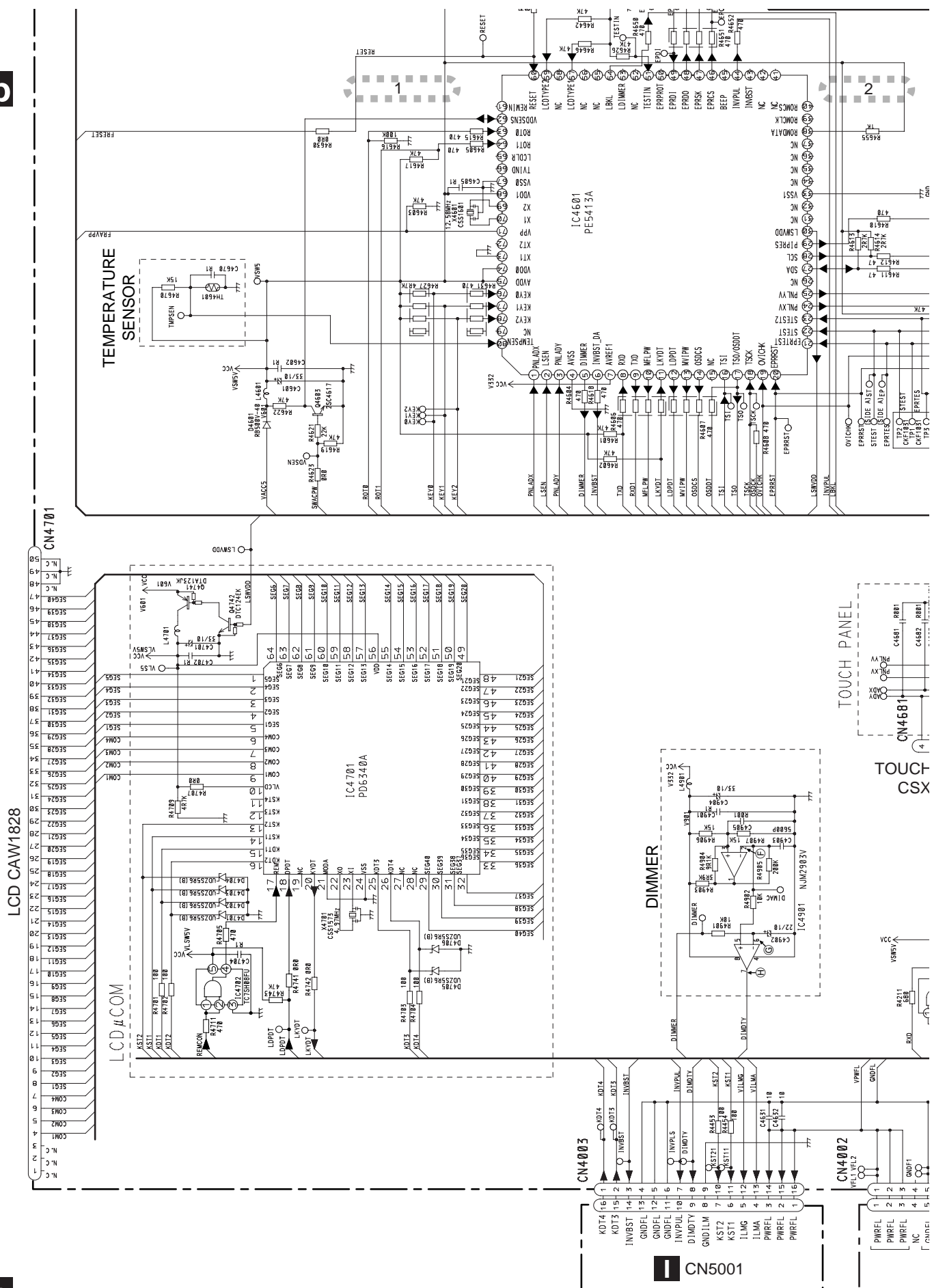
MONITOR UNIT  
Consists of  
MONITOR PCB  
UPPER PCB  
INVERTER PCB

➔ Composite Video Signal  
➔ RGB Signal



**G-b**

G-a	G-b
-----	-----

**G-a**







MONITOR PCB



G-a

G-b

G-c

G-d

G-e

G-f

G-g

G-h

G-i

G-j

G-k

G-l

G-m

G-n

G-o

G-p

G-q

G-r

G-s

G-t

G-u

G-v

G-w

G-x

G-y

G-z

G-aa

G-ab

G-ac

G-ad

G-ae

G-af

G-ag

G-ah

G-ai

G-aj

G-ak

G-al

G-am

G-an

G-ao

G-ap

G-aq

G-ar

G-as

G-at

G-au

G-av

G-aw

G-ax

G-ay

G-az

G-ba

G-bb

G-bc

G-bd

G-be

G-bf

G-bg

G-bh

G-bi

G-bj

G-bk

G-bl

G-bm

G-bn

G-bo

G-bp

G-bq

G-br

G-bs

G-bt

G-bu

G-bv

G-bw

G-bx

G-by

G-bz

G-ca

G-cb

G-cc

G-cd

G-ce

G-cf

G-cg

G-ch

G-ci

G-cj

G-cl

G-cm

G-cn

G-co

G-cp

G-cq

G-cr

G-cs

G-ct

G-cu

G-cv

G-cw

G-cx

G-cy

G-cz

G-da

G-db

G-dc

G-dd

G-de

G-df

G-dg

G-dh

G-di

G-dj

G-dk

G-dl

G-dm

G-dn

G-do

G-dp

G-dq

G-dr

G-ds

G-dt

G-du

G-dv

G-dw

G-dx

G-dy

G-dz

G-ea

G-eb

G-ec

G-ed

G-ee

G-ef

G-eg

G-eh

G-ei

G-ej

G-ek

G-el

G-em

G-en

G-eo

G-ep

G-eq

G-er

G-es

G-et

G-eu

G-ev

G-ew

G-ex

G-ey

G-ez

G-fa

G-fb

G-fc

G-fd

G-fe

G-fg

G-fh

G-fi

G-fj

G-fk

G-fl

G-fm

G-fn

G-fo

G-fp

G-fq

G-fr

G-fs

G-ft

G-fu

G-fv

G-fw

G-fx

G-fy

G-fz

G-ga

G-gb

G-gc

G-gd

G-ge

G-gf

G-gg

G-gh

G-gi

G-gj

G-gk

G-gl

G-gm

G-gn

G-go

G-gp

G-gq

G-gr

G-gs

G-gt

G-gu

G-gv

G-gw

G-gx

G-gy

G-gz

G-ha

G-hb

G-hc

G-hd

G-he

G-hf

G-hg

G-hh

G-hi

G-hj

G-hk

G-hl

G-hm

G-hn

G-ho

G-hp

G-hq

G-hr

G-hs

G-ht

G-hu

G-hv

G-hw

G-hx

G-hy

G-hz

G-ia

G-ib

G-ic

G-id

G-ie

G-if

G-ig

G-ih

G-ii

G-ij

G-ik

G-il

G-im

G-in

G-io

G-ip

G-iq

G-ir

G-is

G-it

G-iu

G-iv

G-iw

G-ix

G-iy

G-iz

G-ja

G-jb

G-jc

G-jd

G-je

G-jf

G-jg

G-jh

G-ji

G-ij

G-jk

G-jl

G-jm

G-jn

G-jo

G-jp

G-jq

G-jr

G-js

G-jt

G-ju

G-jv

G-jw

G-jx

G-jy

G-jz

G-ka

G-kb

G-kc

G-kd

G-ke

G-kf

G-kg

G-kh

G-ki

G-kj

G-kl

G-km

G-kn

G-ko

G-kp

G-kq

G-kr

G-ks

G-kt

G-ku

G-kv

G-kw

G-kx

G-ky

G-kz

G-la

G-lb

G-lc

G-le

G-lf

G-lg

G-lh

G-li

G-lj

G-lk

G-lm

G-ln

G-lo

G-lp

G-lq

G-lr

G-ls

G-lt

G-lu

G-lv

G-lw

G-lx

G-ly

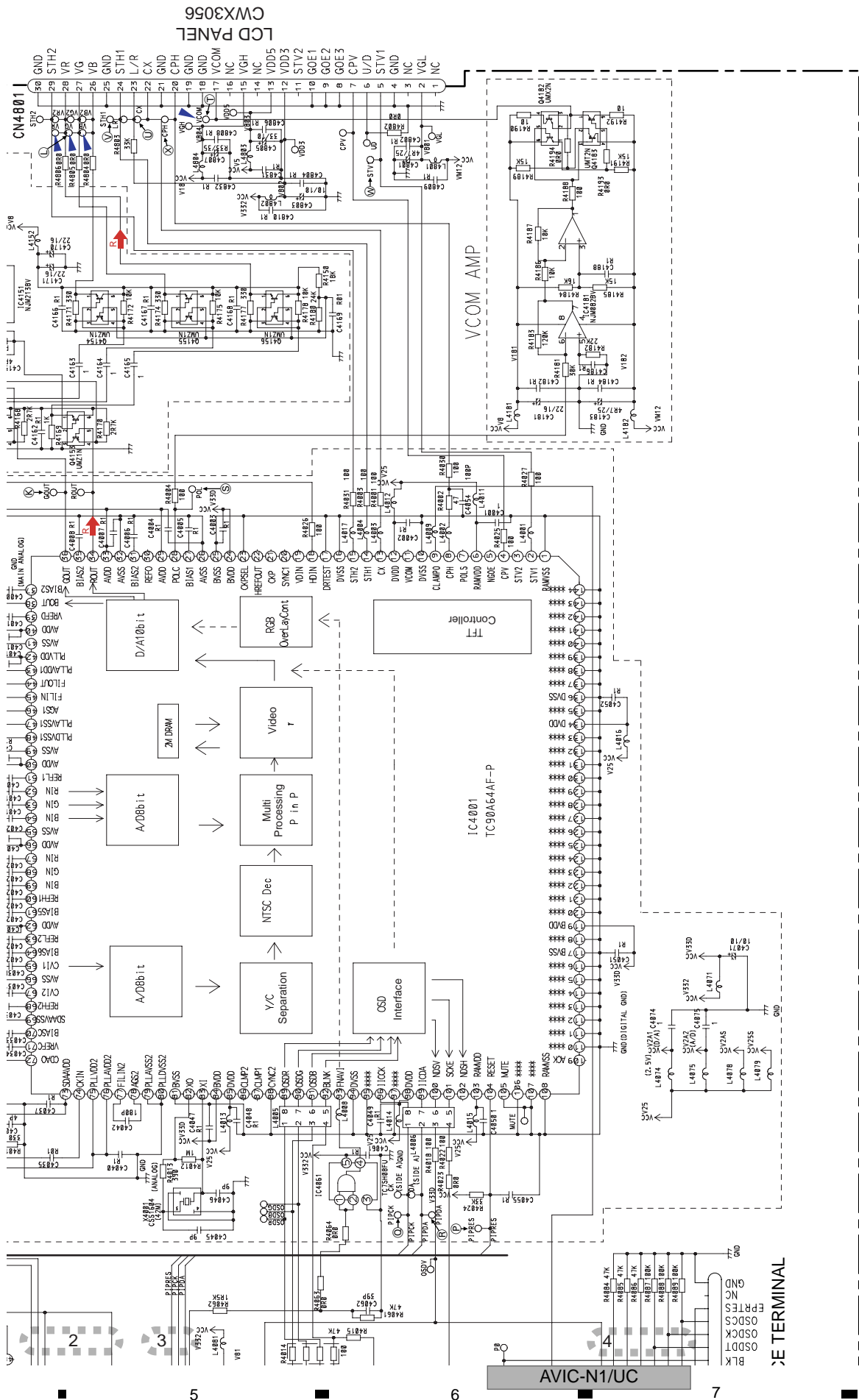
G-lz

G-ma

G-mb

G-mc





↑ Composite Video Signal  
↑ RGB Signal

MONITOR UNIT  
Consists of  
MONITOR PCB  
UPPER PCB  
INVERTER PCB

G-a G-b

G-b



# Waveforms

The encircled number denote measuring points in the circuit diagram.

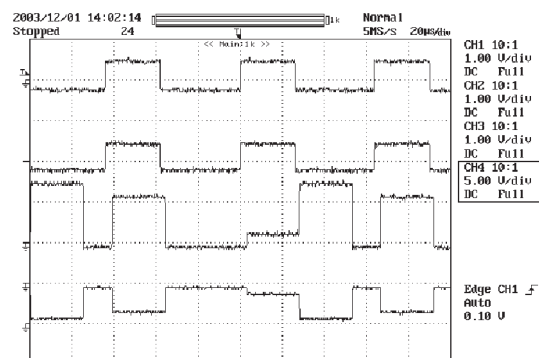
A

- Ⓐ CH1:IC4851 Pin 4  
Ⓑ CH2:Q4851 Pin 5



B

- INPUT : Color bar signal  
Ⓘ CH1:ANG Ⓚ CH3:GOUT  
Ⓛ CH2:ANG3 Ⓛ CH4:VG



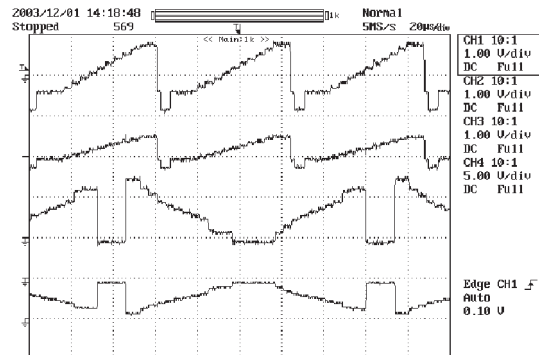
C

- Ⓒ CH1:IC4861 Pin 15 ⓔ CH3:IC4861 Pin 10  
ⓓ CH2:IC4861 Pin 12



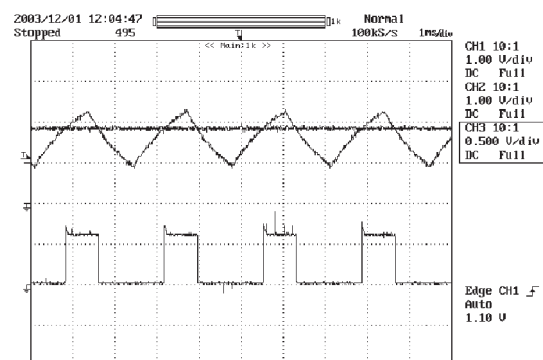
D

- INPUT : 10STEP VTR IN  
Ⓜ CH1:CVBS Ⓚ CH3:GOUT  
Ⓝ CH2:CVBS3 Ⓛ CH4:VG



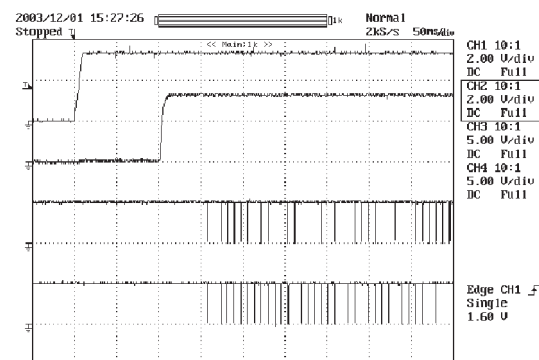
E

- Ⓕ CH1:IC4901 Pin 2 ⓖ CH3:IC4901 Pin 7  
Ⓖ CH2:IC4901 Pin 6



F

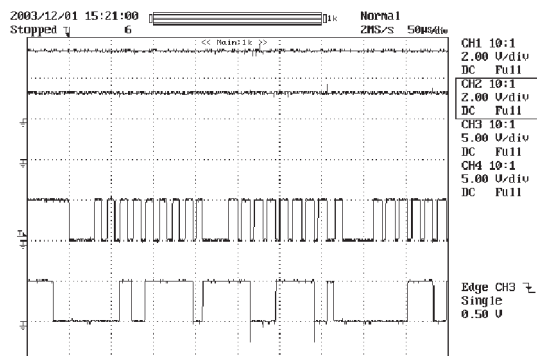
- Ⓖ CH1:V33 ⓐ CH3:PIPCK  
Ⓖ CH2:PIPRES ⓐ CH4:PIPDA





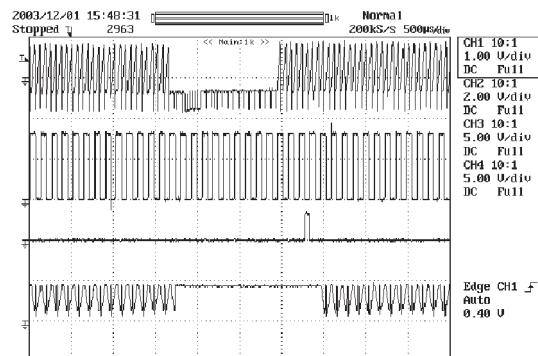
Ⓞ CH1:V33  
Ⓟ CH2:PIPRES

Ⓞ CH3:PIPCK  
Ⓡ CH4:PIPPA



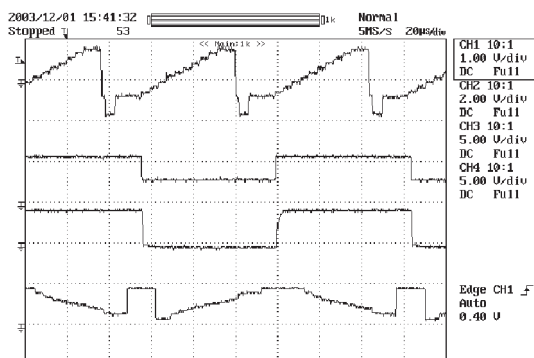
Ⓜ CH1:CVBS  
Ⓢ CH2:CX

Ⓜ CH3:STV1  
Ⓢ CH4:VG



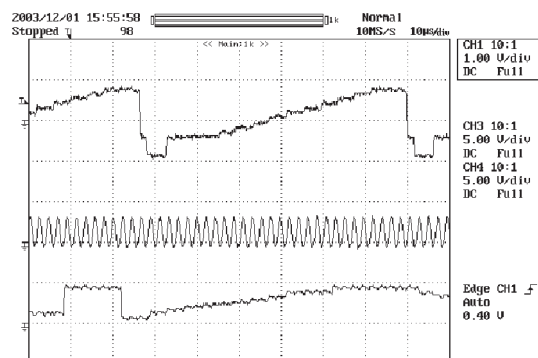
Ⓜ CH1:CVBS  
Ⓢ CH2:POL

Ⓢ CH3:VCOM  
Ⓢ CH4:VG



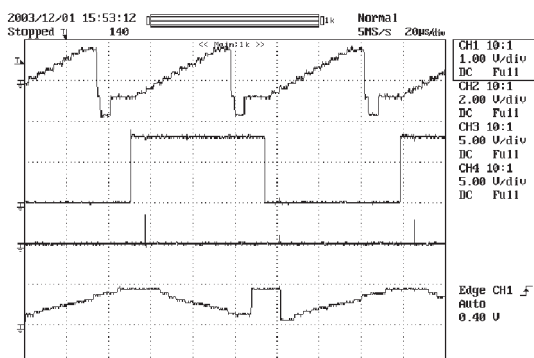
Ⓜ CH1:CVBS

Ⓢ CH3:CPH  
Ⓢ CH4:VG



Ⓜ CH1:CVBS  
Ⓢ CH2:CX

Ⓢ CH3:STH1  
Ⓢ CH4:VG



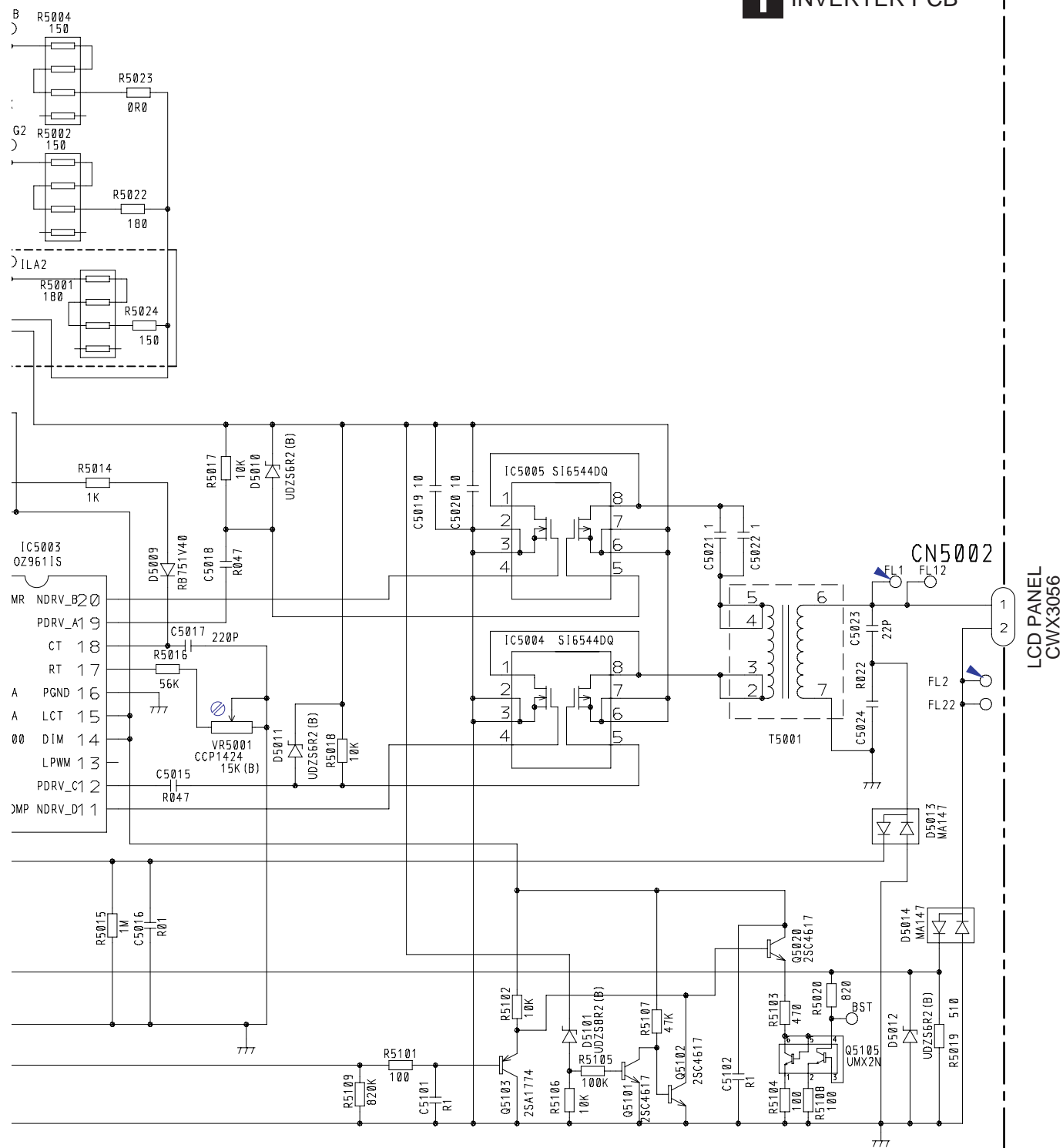






MONITOR UNIT  
Consists of  
MONITOR PCB  
UPPER PCB  
INVERTER PCB

## INVERTER PCB





### 3.18 RELAY PCB

#### J RELAY PCB

A

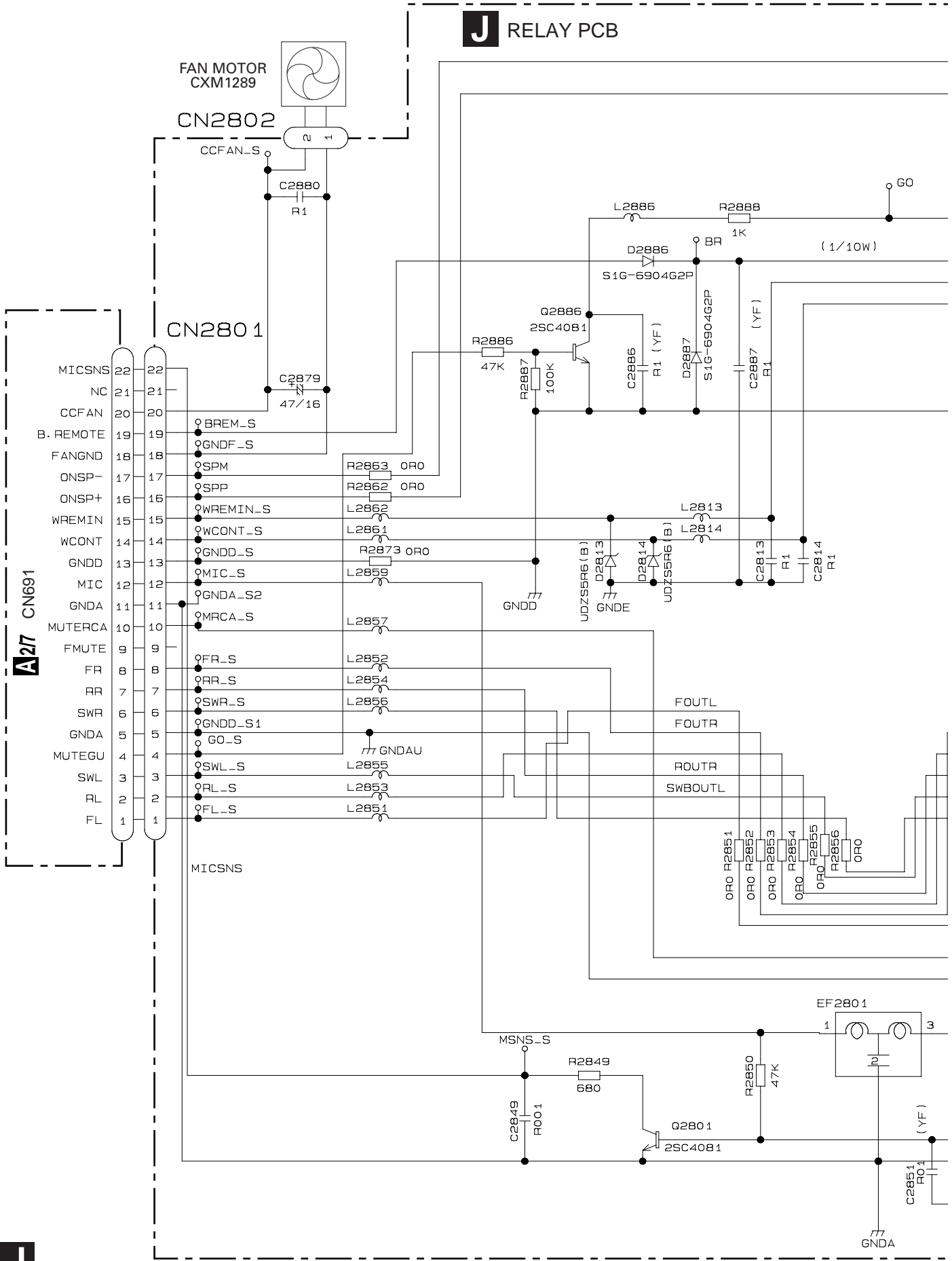
B

C

D

E

F









## 4

A



C

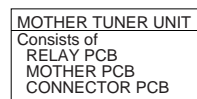
D

F

F



## K1/2 MOTHER PCB (H/A SYSTEM)





AVIC-N1/UC

















## 4



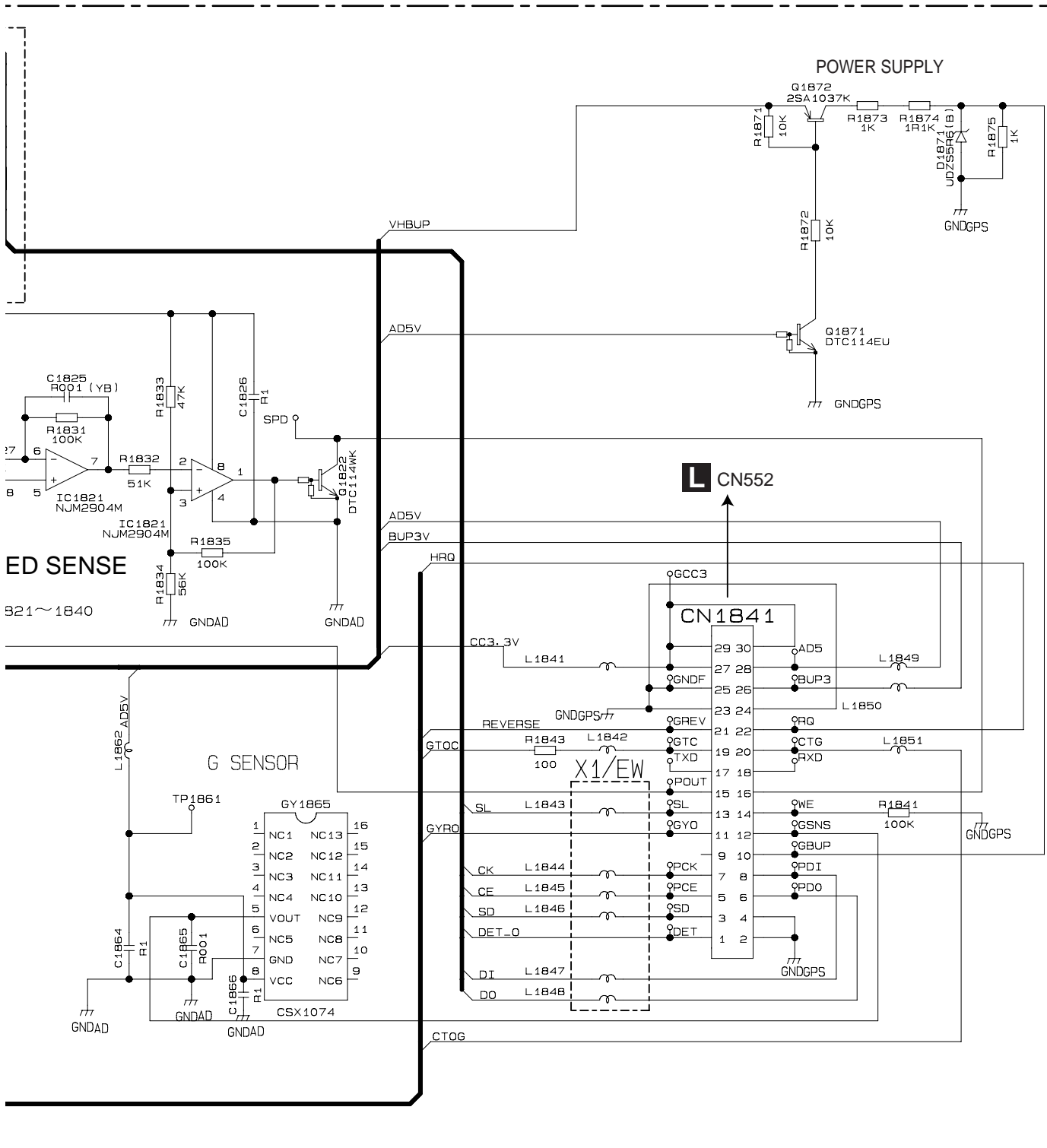


903



7 GNDAD

# K2/2 MOTHER PCB (SENSOR)

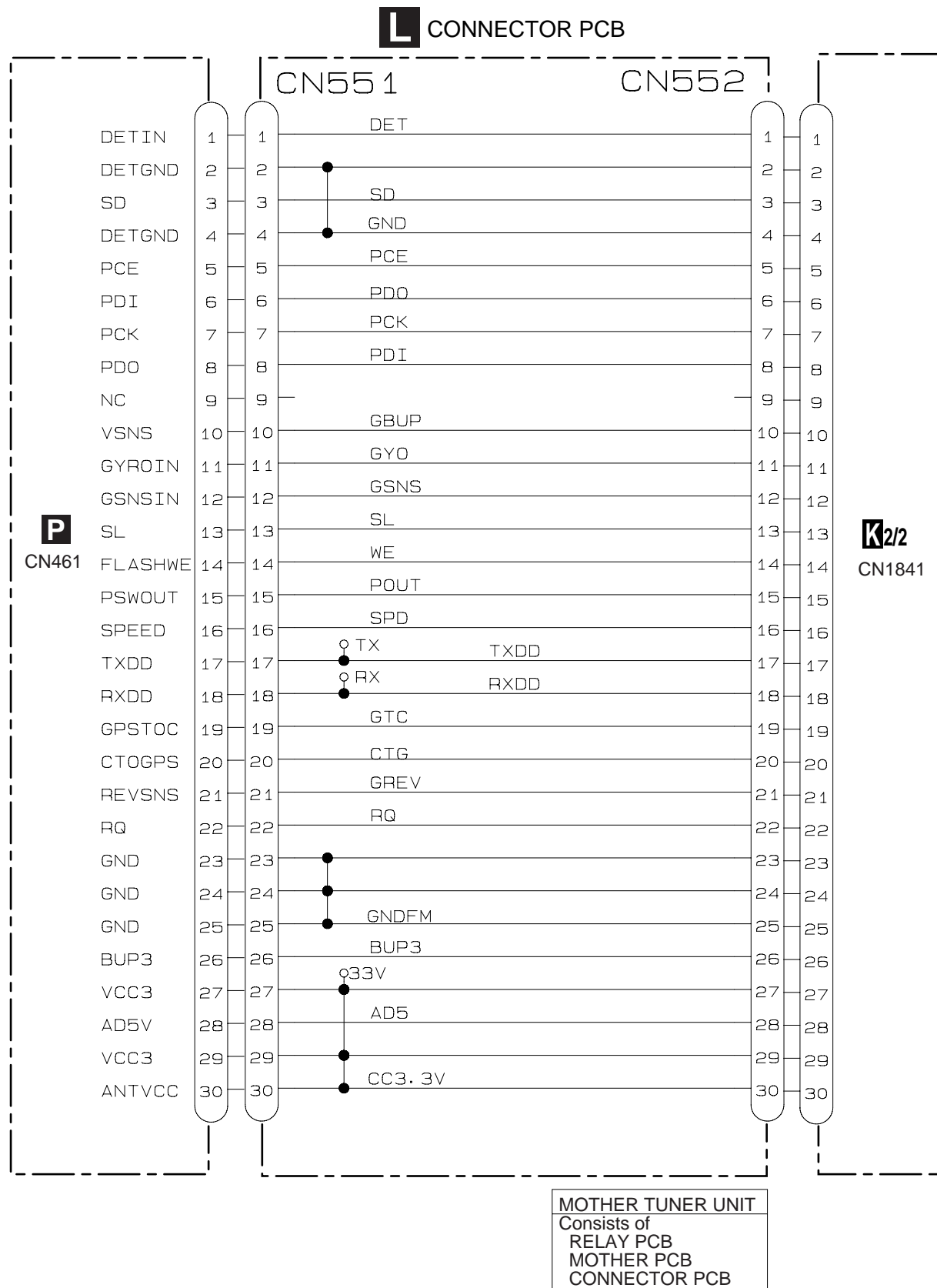


**MOTHER TUNER UNIT**  
Consists of  
RELAY PCB  
MOTHER PCB  
CONNECTOR PCB

K2/2



## 3.21 CONNECTOR PCB





■

5

■

6

■

7

■

8

■

A

■

B

■

C

■

D

■

E

■

F

■

5

■

6

AVIC-N1/UC

■

7

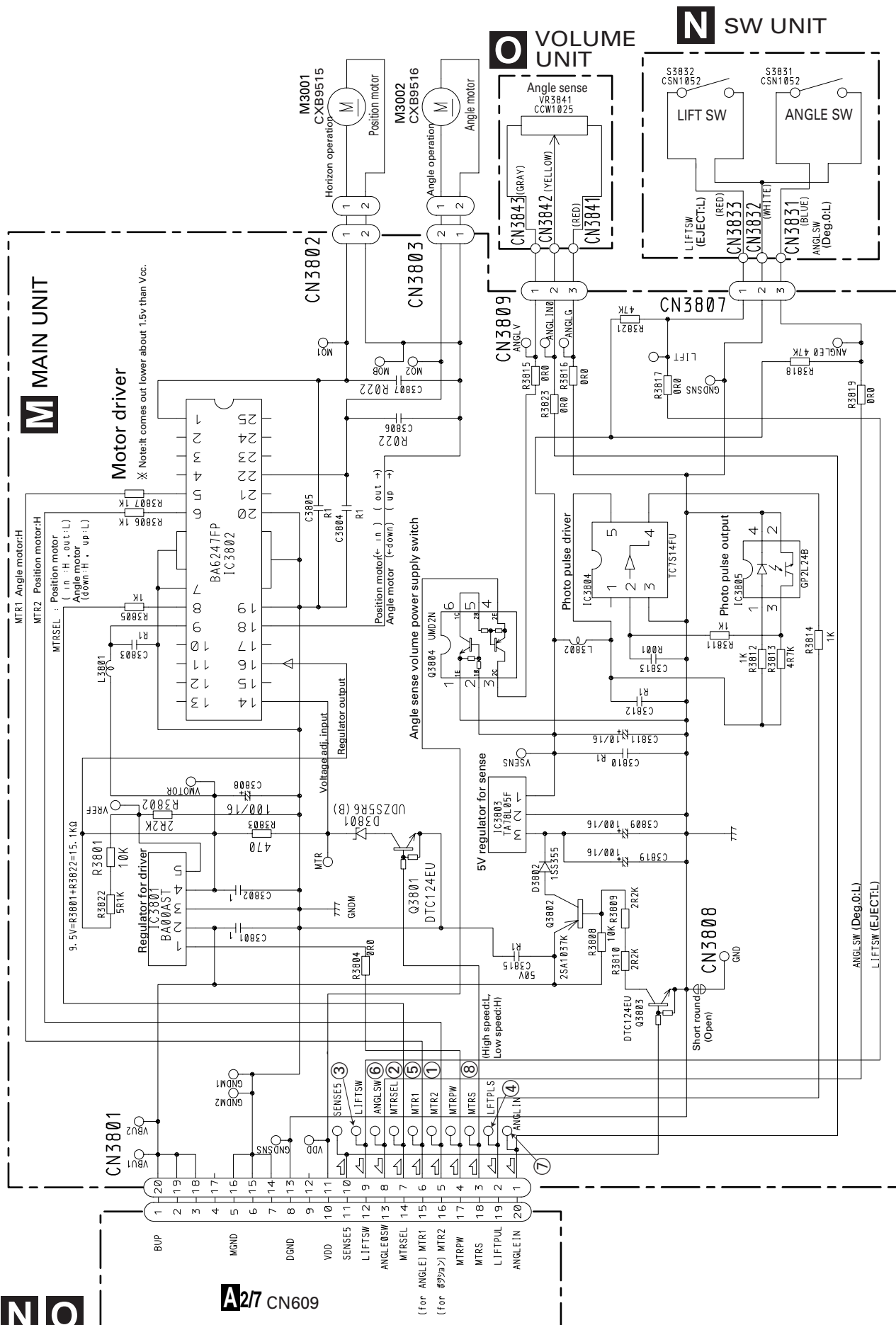
■

8

■



### 3.22 MAIN UNIT, SW UNIT AND VOLUME UNIT



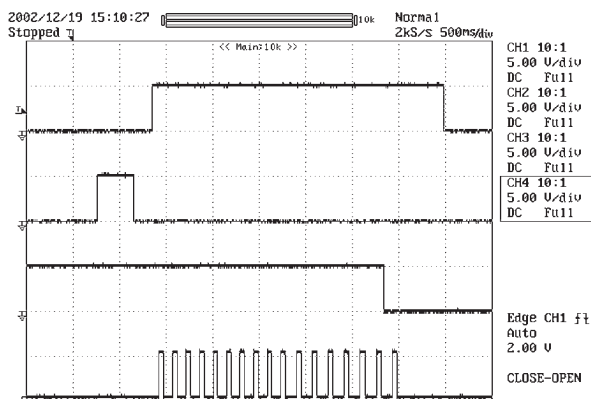


## Waveforms

The encircled number denote measuring points in the circuit diagram.

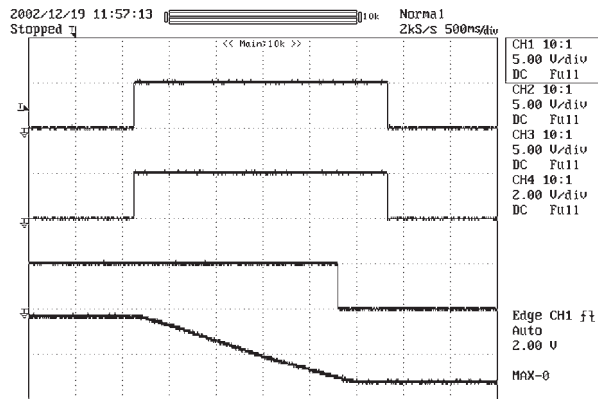
### • CLOSE -> OPEN

- ① CH1:MTR2                      ② CH2:MTRSEL  
③ CH3:LIFTSW                  ④ CH4:LFTPLS



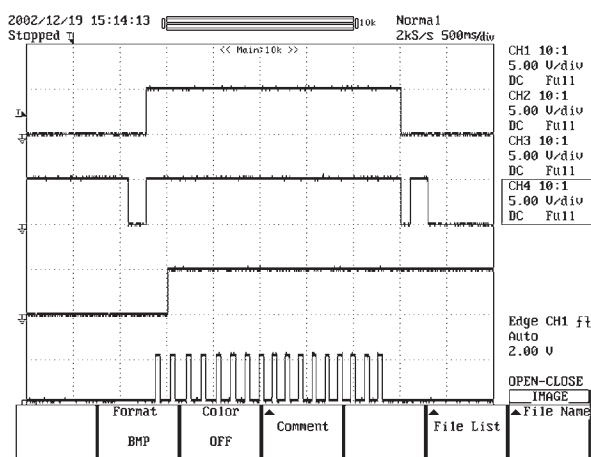
### • MAX -> Deg.0 DOWN

- ⑤ CH1:MTR1                      ② CH2:MTRSEL  
⑥ CH3:ANGLSW                  ⑦ CH4:ANGLIN



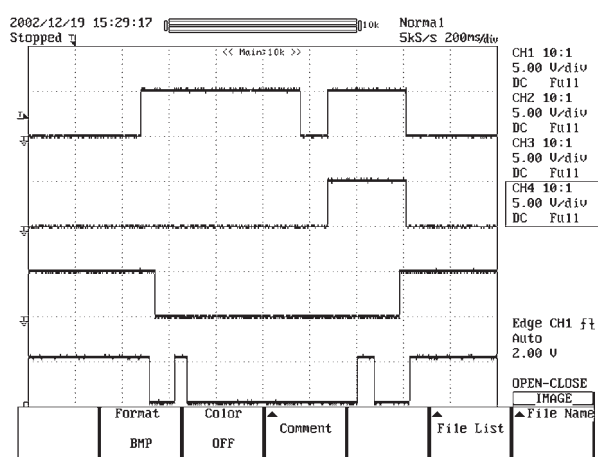
### • OPEN -> CLOSE

- ① CH1:MTR2                      ② CH2:MTRSEL  
③ CH3:LIFTSW                  ④ CH4:LFTPLS



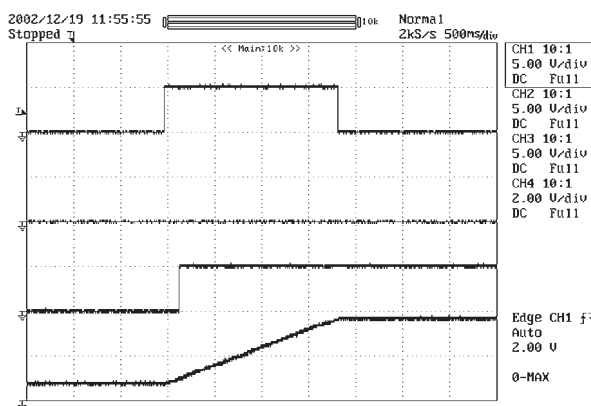
### • Set back open -> Set

- ① CH1:MTR2                      ⑧ CH2:MTRS  
③ CH3:LIFTSW                  ④ CH4:LFTPLS



### • 0->MAX

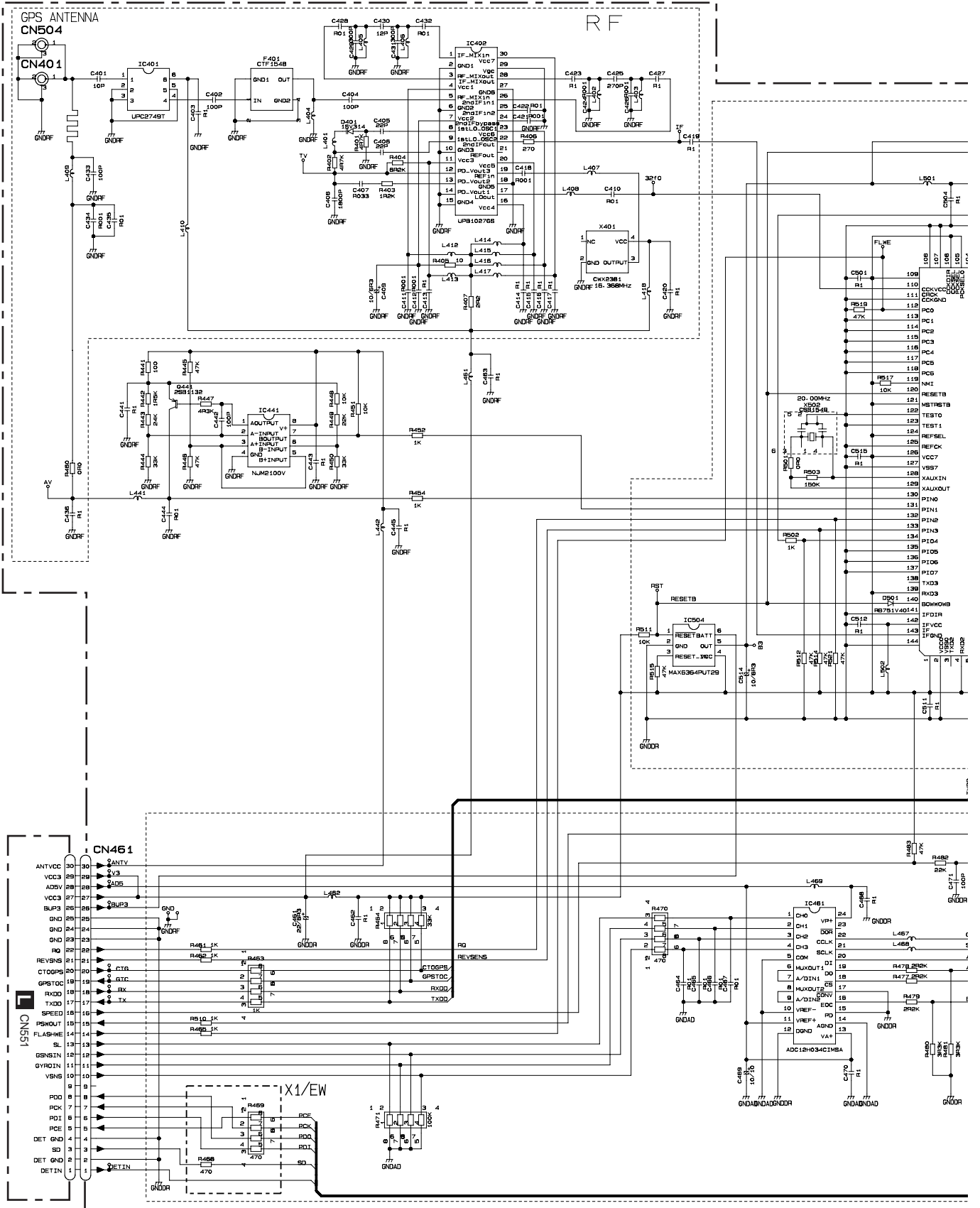
- ⑤ CH1:MTR1                      ② CH2:MTRSEL  
⑥ CH3:ANGLSW                  ⑦ CH4:ANGLIN





## 3.23 GPS UNIT(GUIDE PAGE)

P-a





A

B

C

D

E

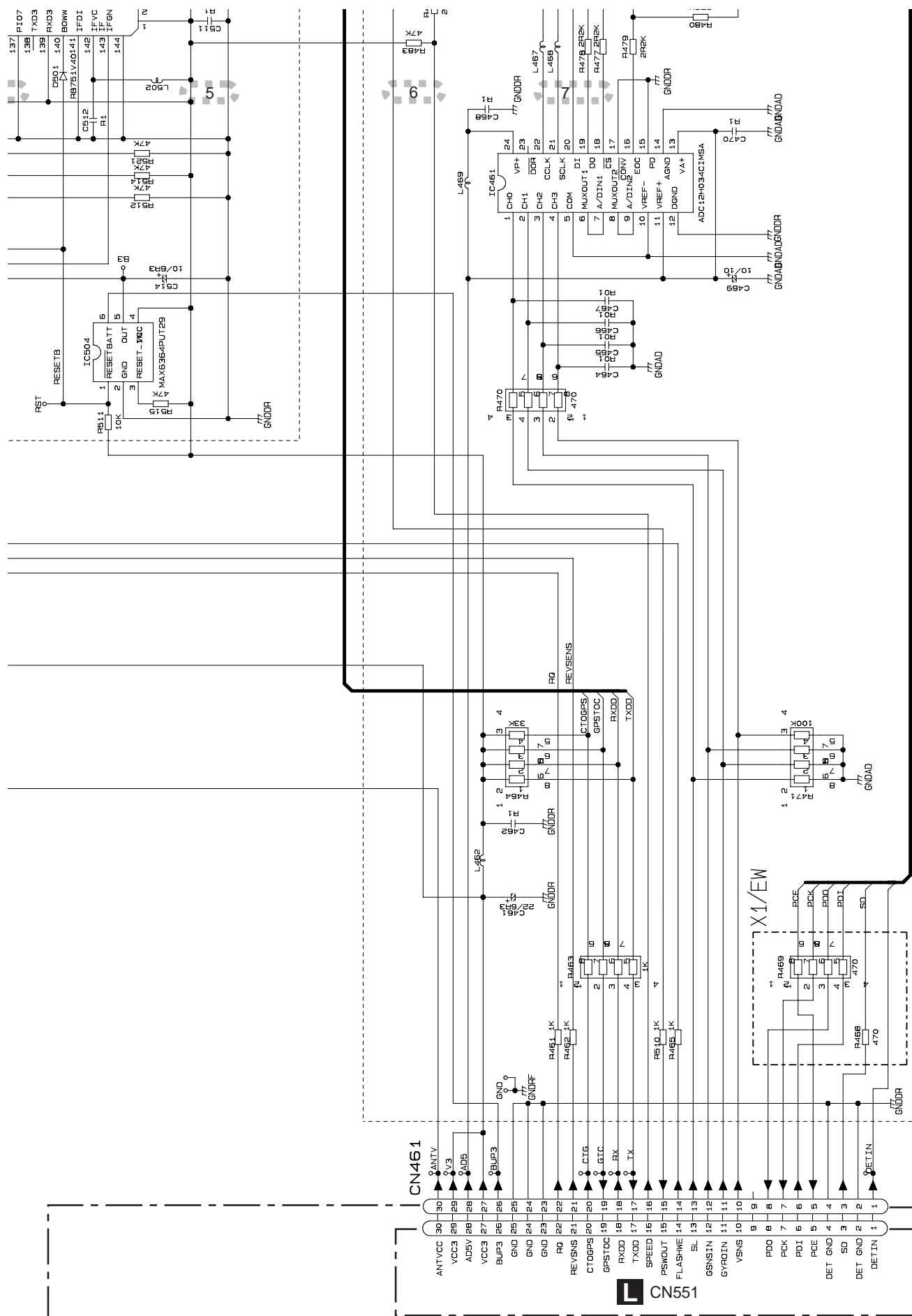
F











A

B

C

D

E

F

P-a	P-b
-----	-----

**P-a**

AVIC-N1/UC

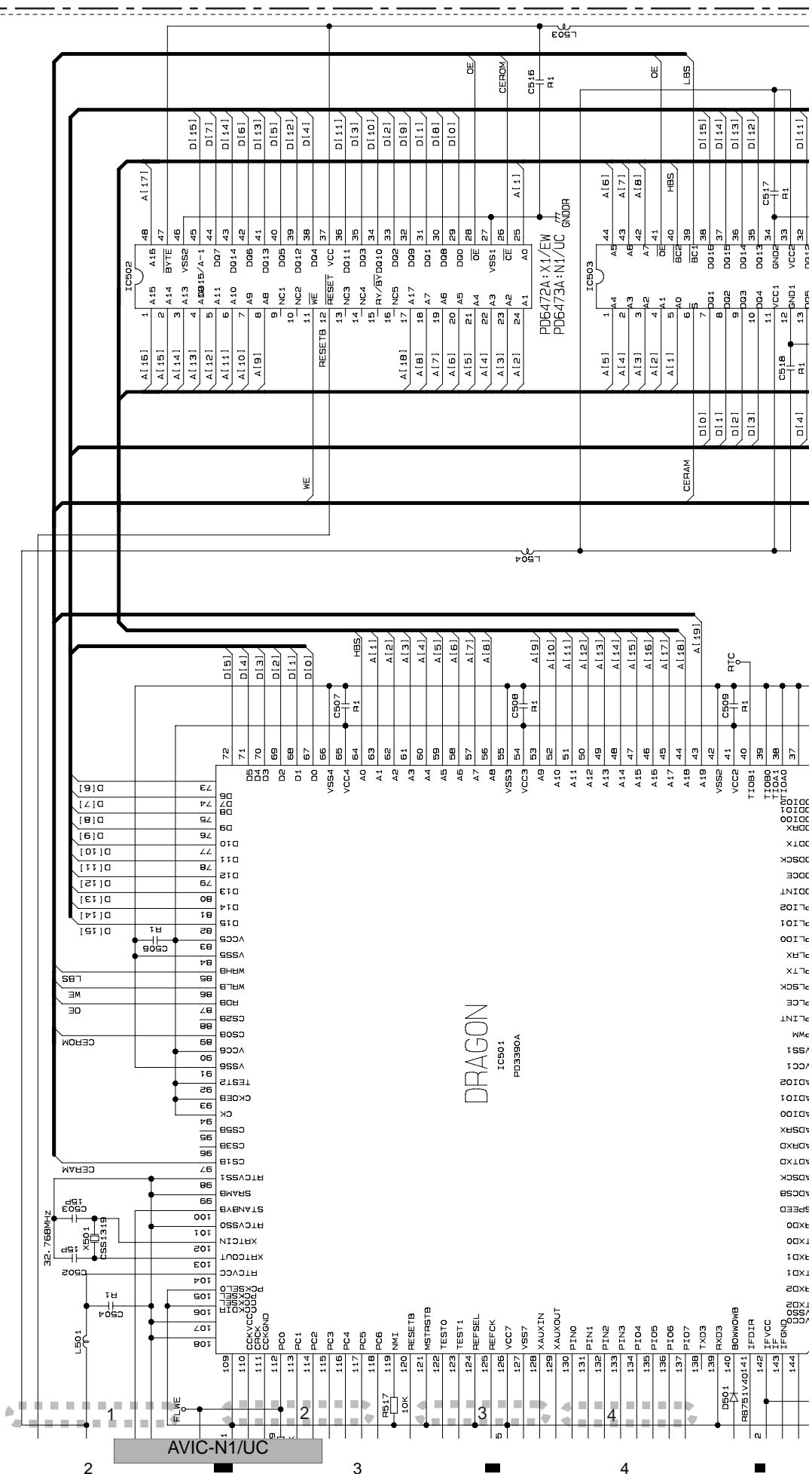


GPS UNIT

P-a	P-b
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

**P-b**

120









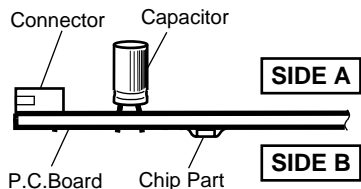
# 4. PCB CONNECTION DIAGRAM

## 4.1 CC UNIT

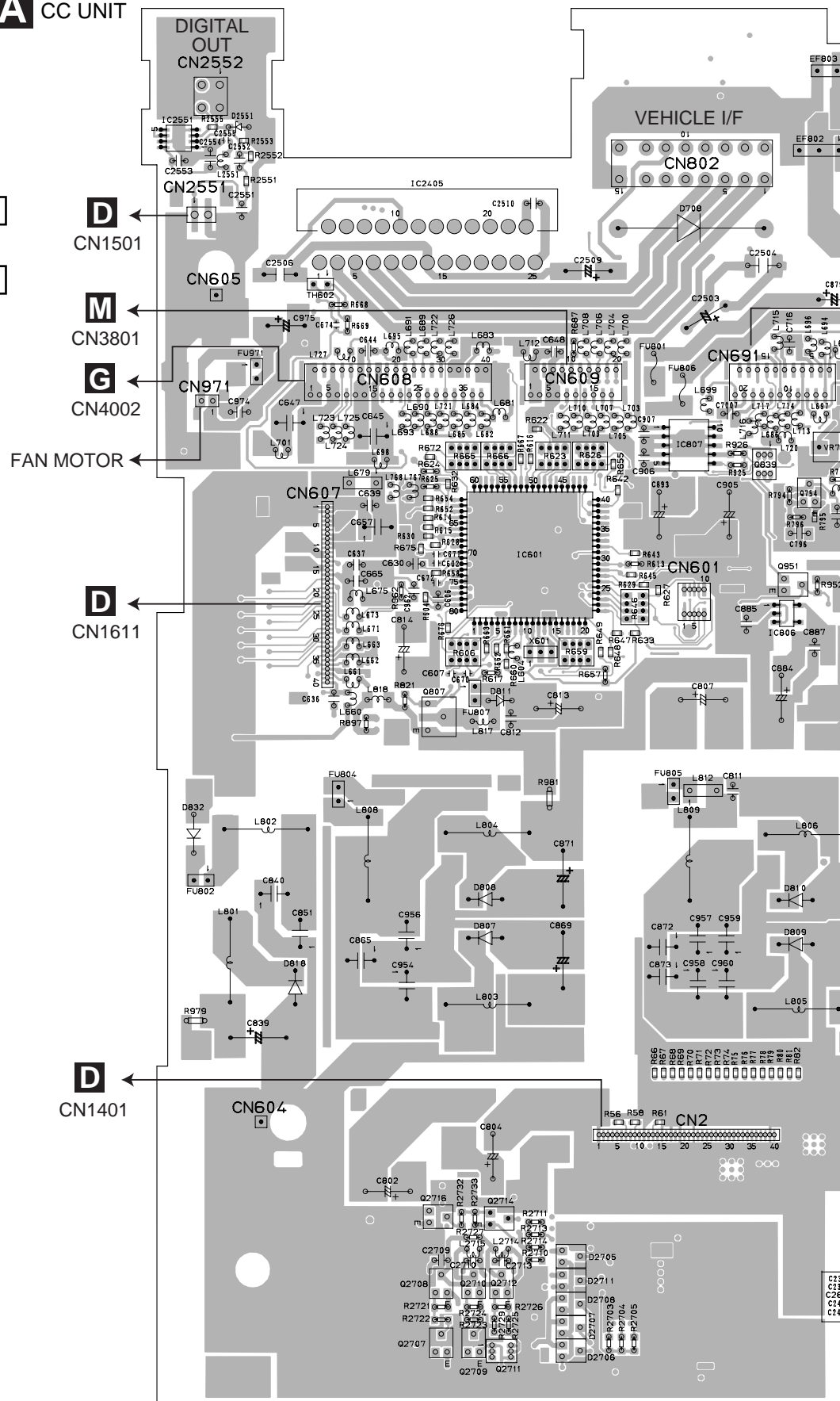
### NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination.  
For further information for respective destinations, be sure to check with the schematic diagram.

2. Viewpoint of PCB diagrams



### A CC UNIT









# A CC UNIT

IC,Q

0822 0704

0691

0692

0821

IC691

0823

0601 0833 0840

0835

0824 02401 02402

02407

02428

02610 0971 02427

02410

IC2408 0837 IC752

0973 02611 IC754

IC755 02419 0972 IC756 IC753

02418 IC2552 IC2553 02414 0828

02416 02421 IC2402 02412 0731

IC2404 02409 IC2601 0752 IC607

02715 IC613 IC611 02417 0621

0751

IC808 IC693 02415 0829 02408

02713 02605 IC757 IC751

IC731 IC602 02608 02606 02603

IC608 02607

02717 IC612 0843 02604

IC2702 IC758

0808 02420

0602 0830 IC810 IC2403 IC801

0815

0816

IC112

IC805

IC114

IC803 IC804

IC113

IC5

0811

0819 0820

0814

IC110

0801 0804

0803

IC3 IC1

IC2701

0802 IC111 02706

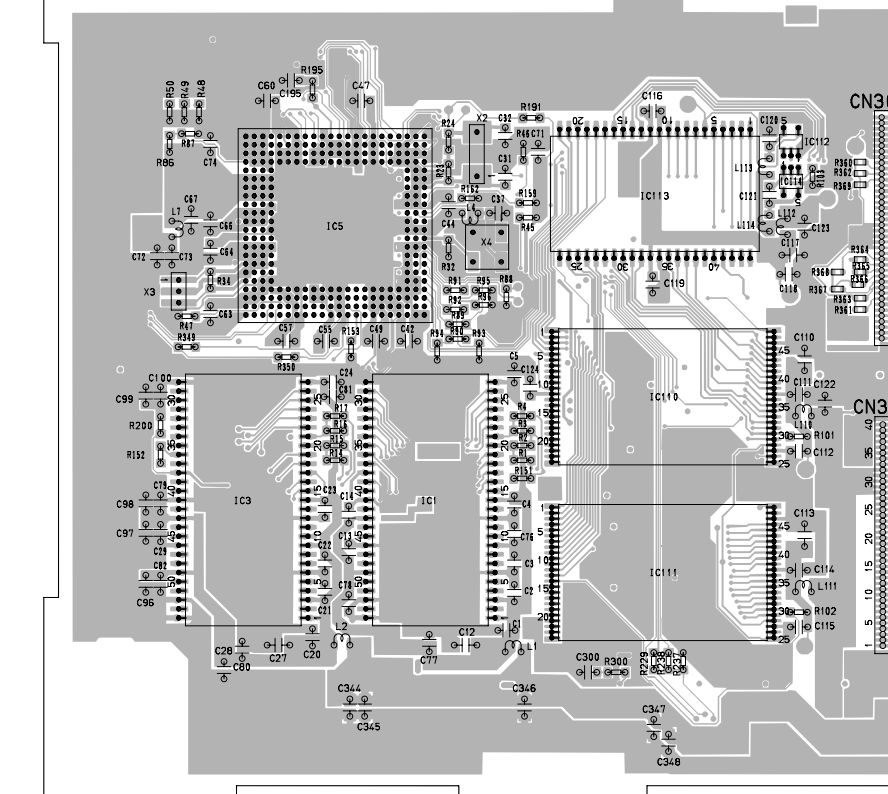
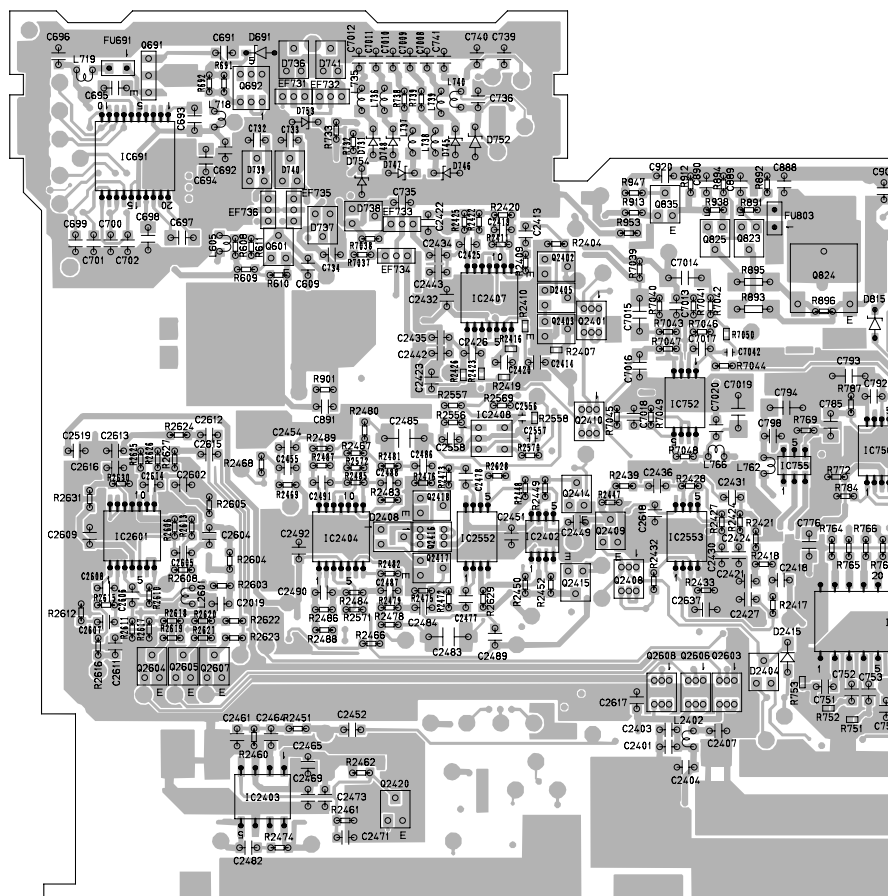
02701

02705

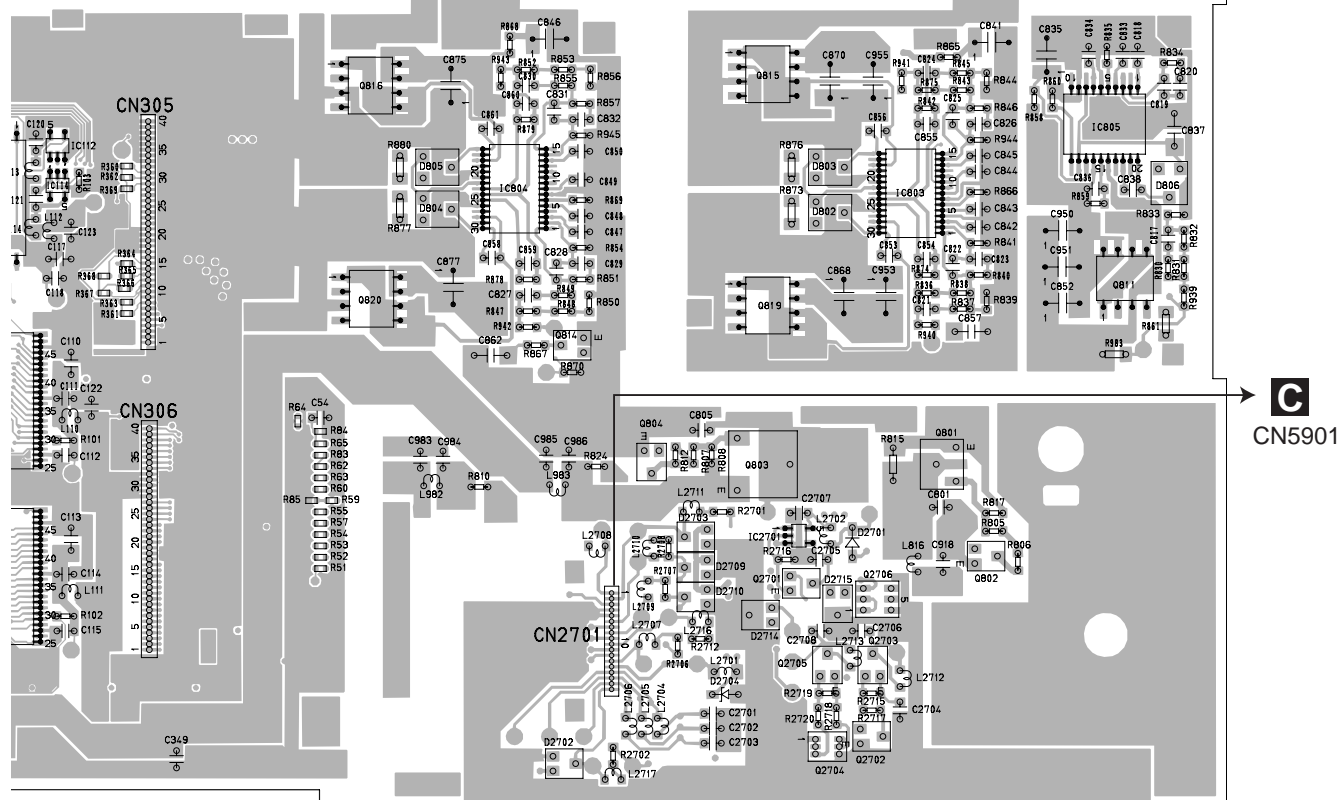
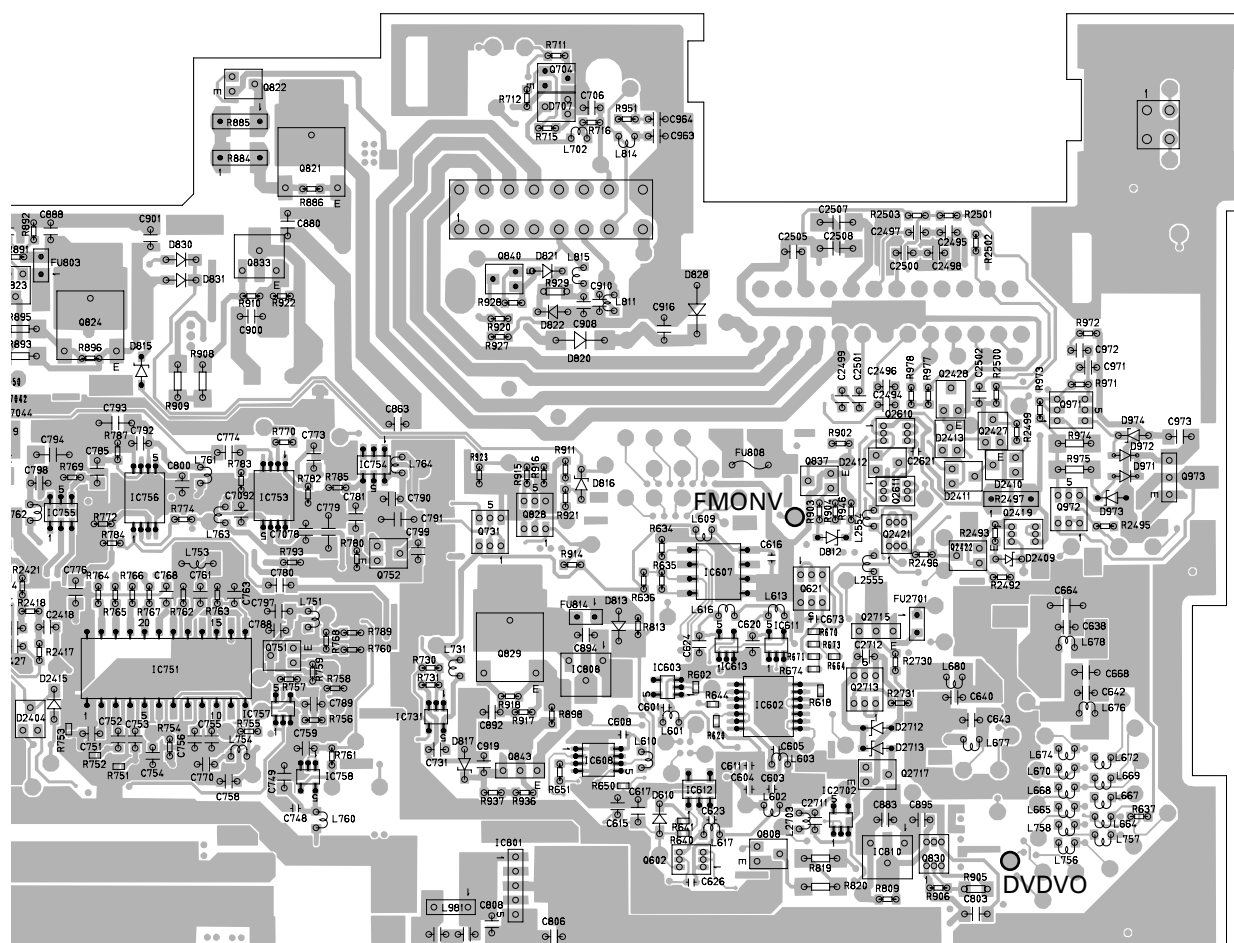
02703

02702

02704





**SIDE B**



4.2 KEYBOARD PCB

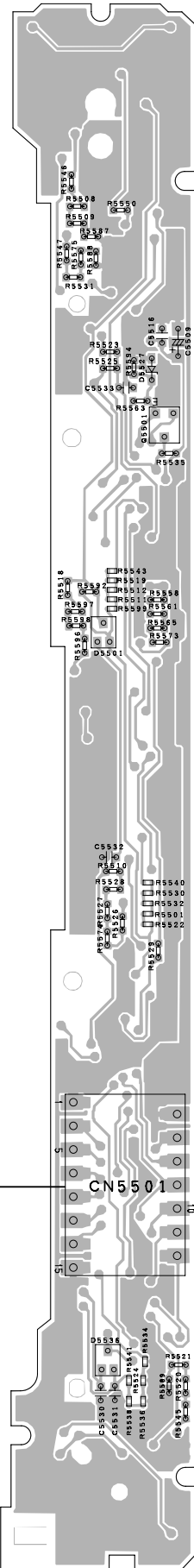
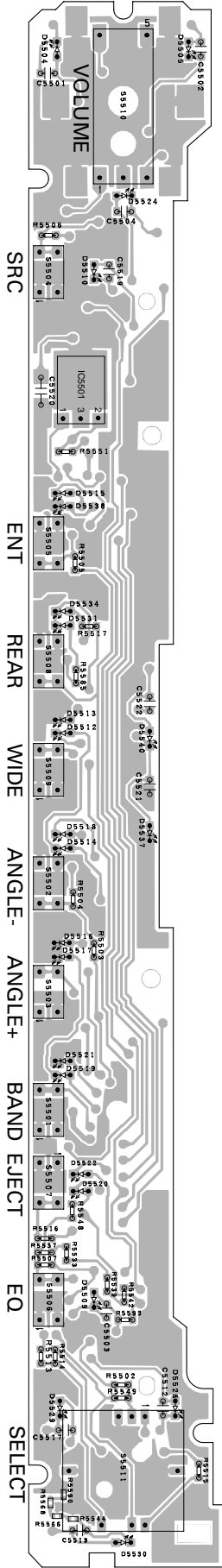
A

**B** KEYBOARD PCB

**SIDE A**

**B** KEYBOARD PCB

**SIDE B**



**C** CN5902

CN5501



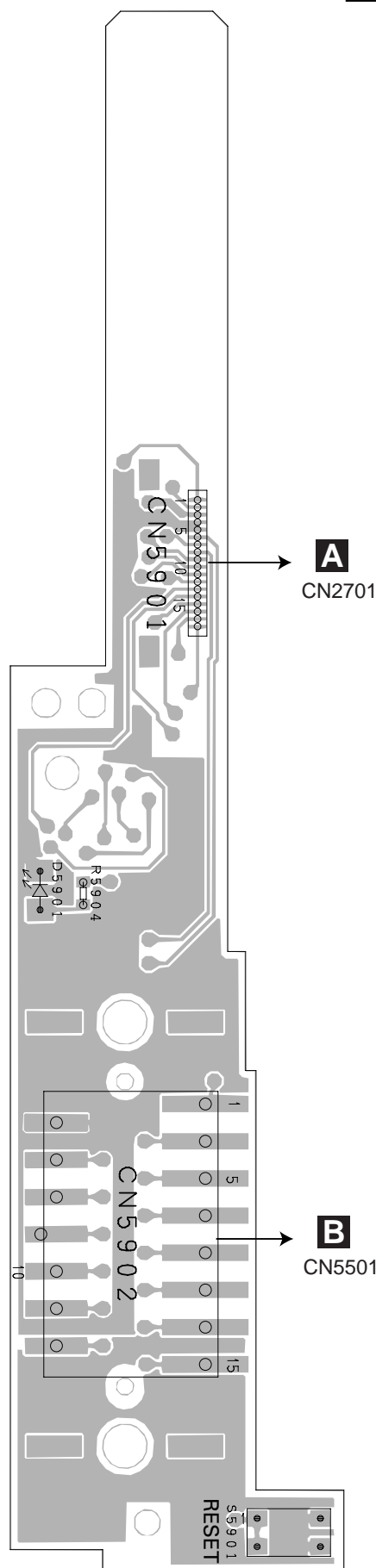
### 4.3 PANEL PCB

**C** PANEL PCB

**SIDE A**

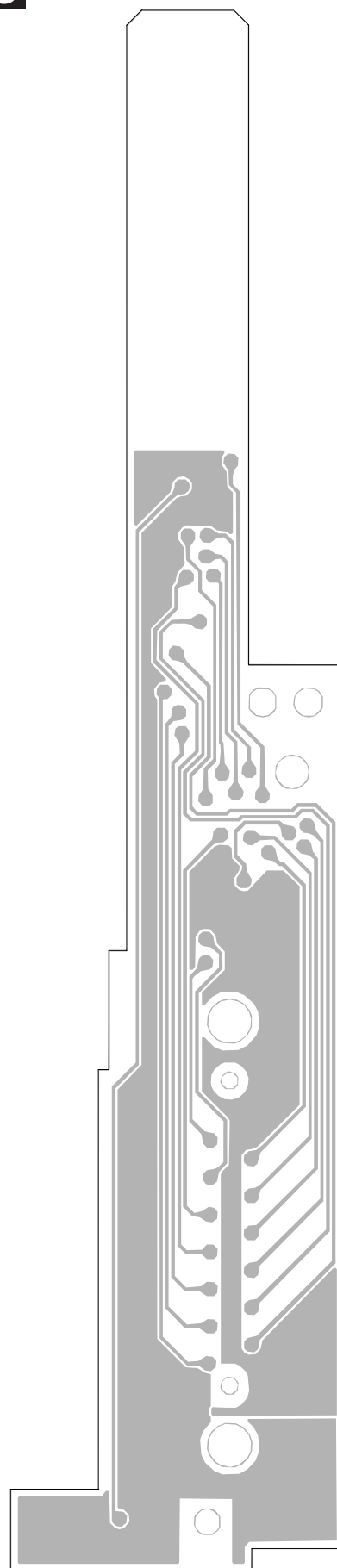
**C** PANEL PCB

**SIDE B**



**A**  
CN2701

**B**  
CN5501



**C**





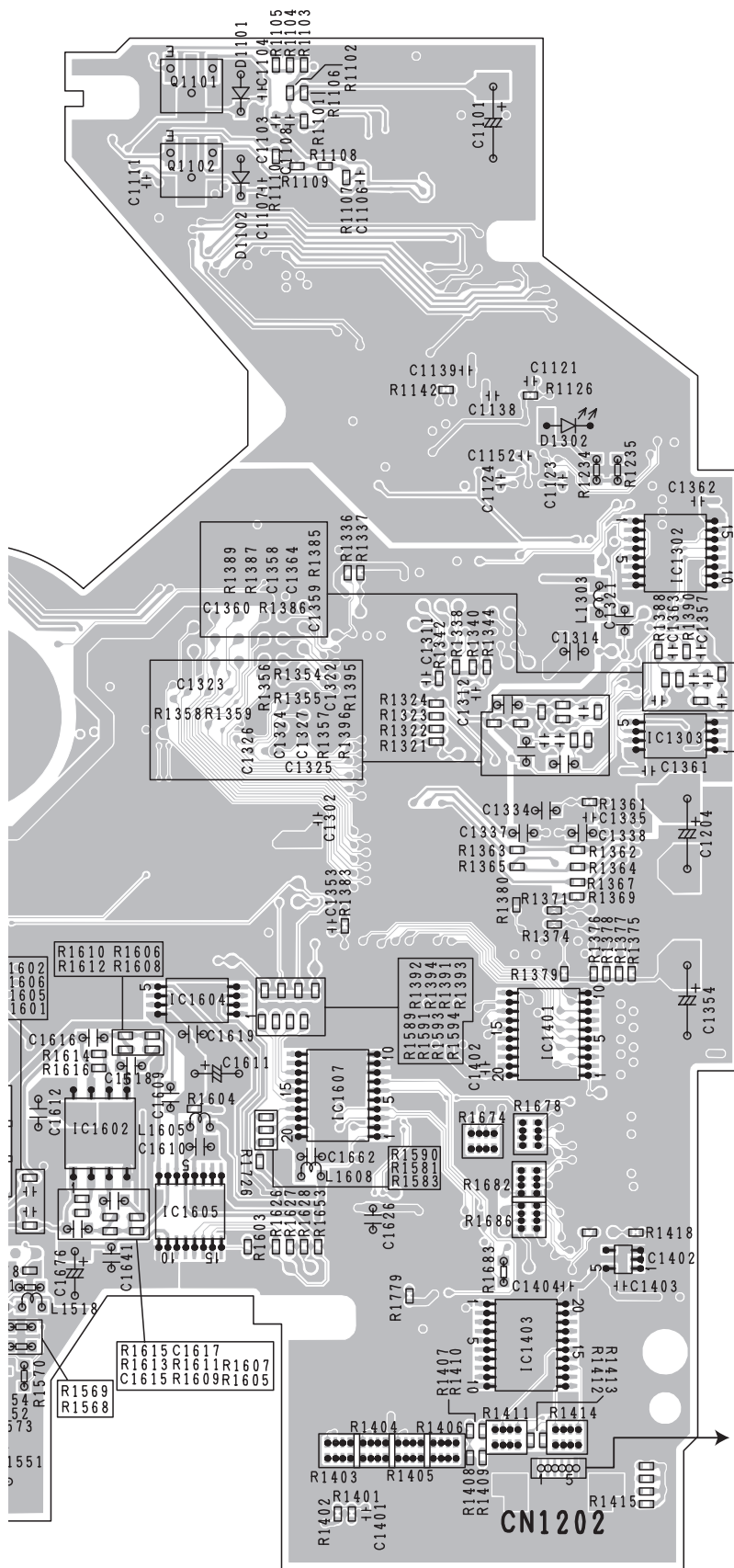












SIDE B

IC,Q

Q1101

Q1102

IC1302

IC1303

IC1604

IC1401

IC1505

IC1607

IC1602

IC1605

IC1705

IC1402

IC1501

IC1508

IC1403

E

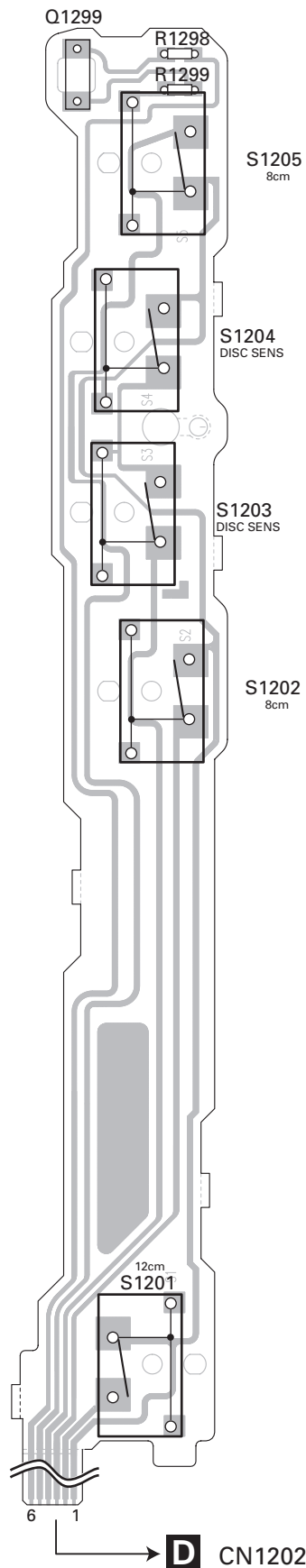
D



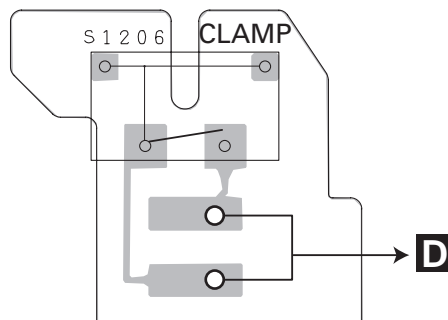
## 4.5 COMPOUND UNIT(A) AND COMPOUND UNIT(B)

A

### **E** COMPOUND UNIT(A)



### **F** COMPOUND UNIT(B)



B

C

D

E

F



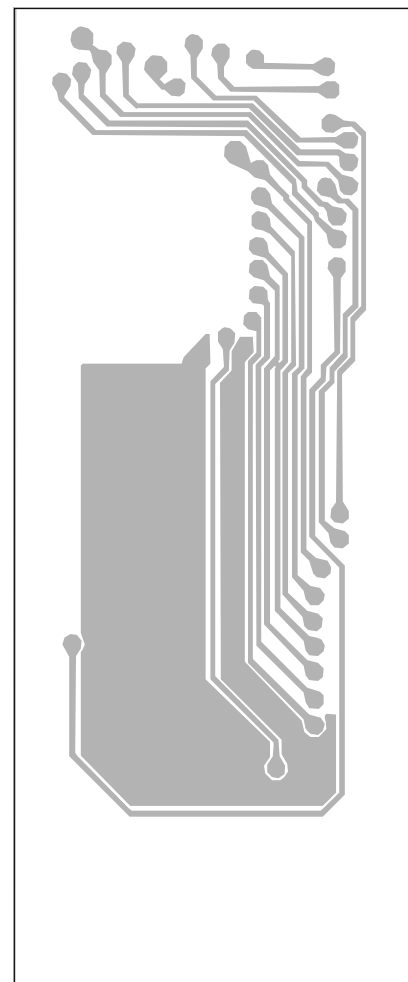
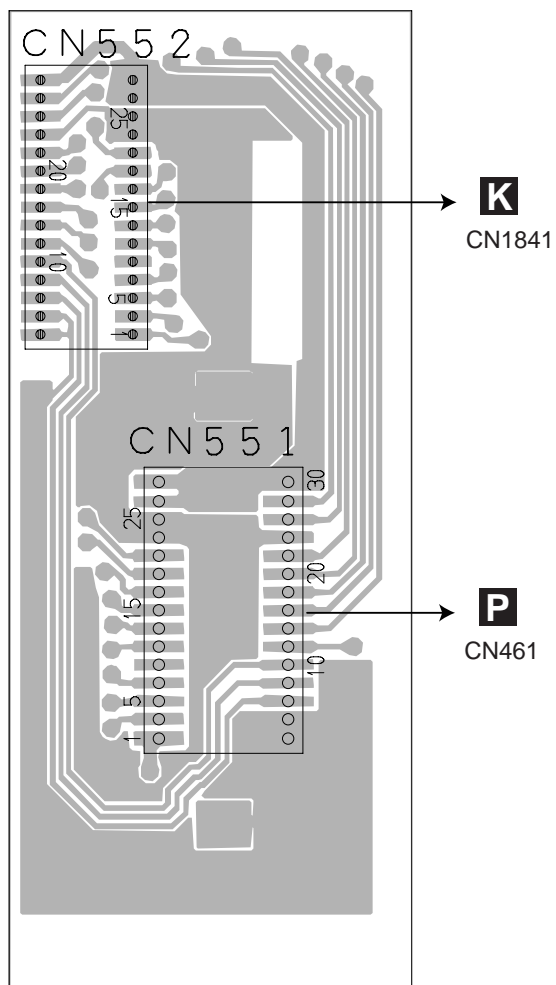
## 4.6 CONNECTOR PCB

**L** CONNECTOR PCB

**SIDE A**

**L** CONNECTOR PCB

**SIDE B**





## 4.7 MONITOR PCB



G MONITOR PCB

IC. Q

IC4062

IC4082 IC4061

IC4092

Q4101 IC4701

Q4103

Q4102

Q4113 Q4741

Q4121 Q4742

IC4001 04131

IC4652

IC4142

94151

104101

Q4153 IC4601

IC4212 Q4831

IC4651 Q4851

Q4155 Q4154  
Q4156

Q4603 Q4832

IC4851

04182 TC4901

4433

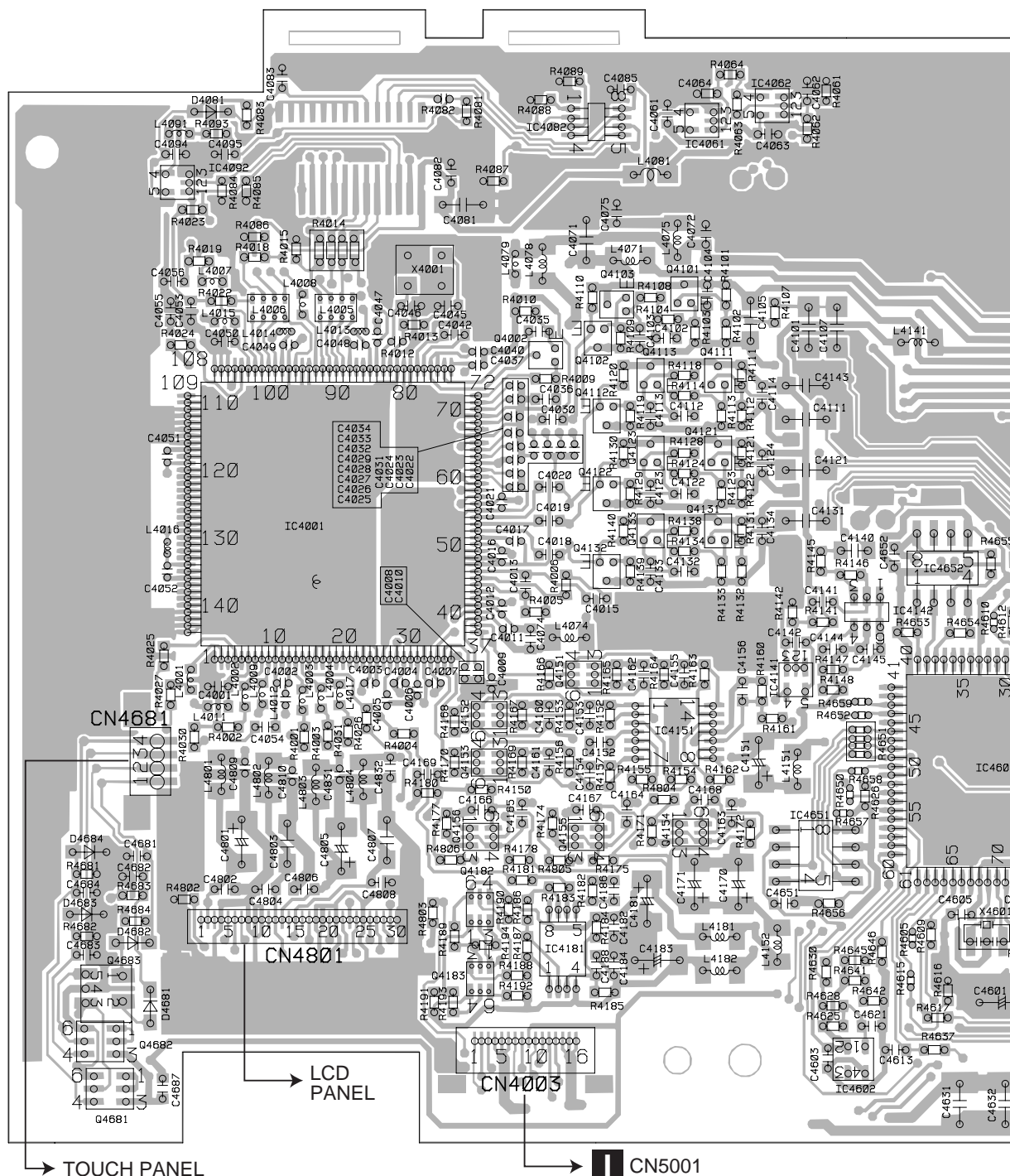
Q4683

04183

Q4682

IC4602

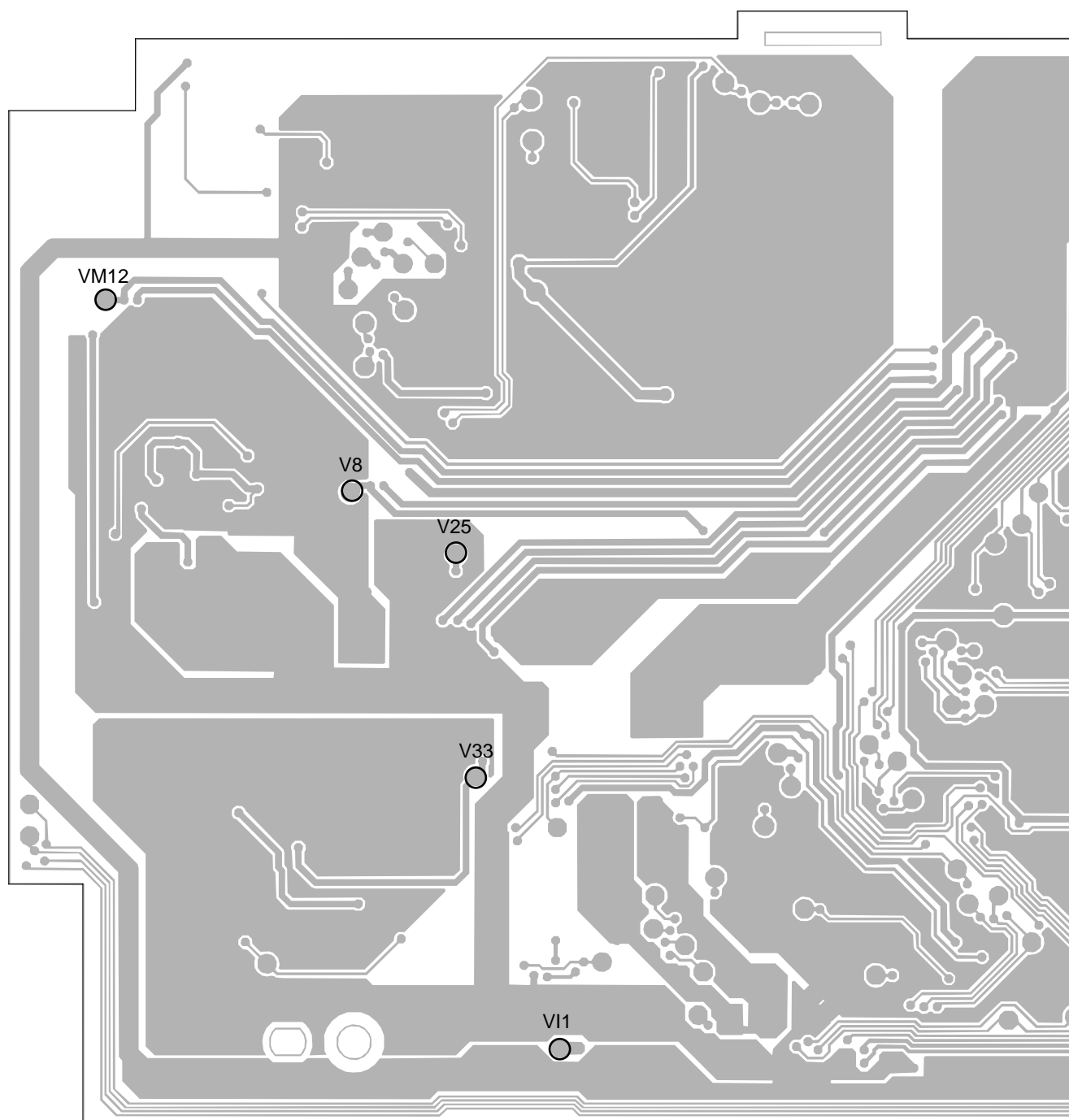
Q4681





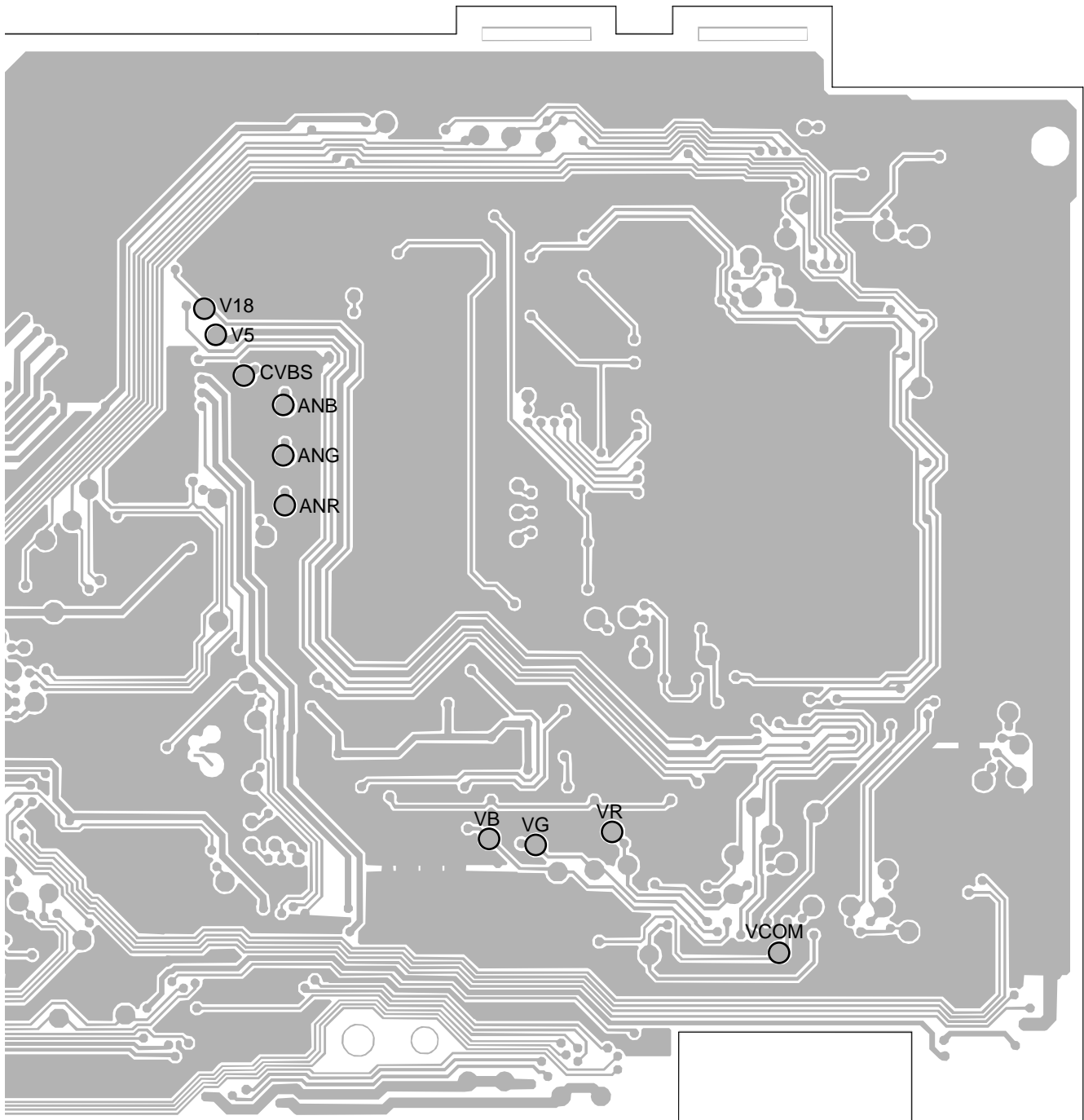




**G** MONITOR PCB



SIDE B





## 4.8 UPPER PCB

## H UPPER PCB

## SIDE A

## UPPER PCB

## SIDE B

IC, Q

PGM(N1/UC)	DISP
TA(X1/EW)	

**G** CN4005

CN4301

IC4311

OPEN/CLOSE HALF/CLK







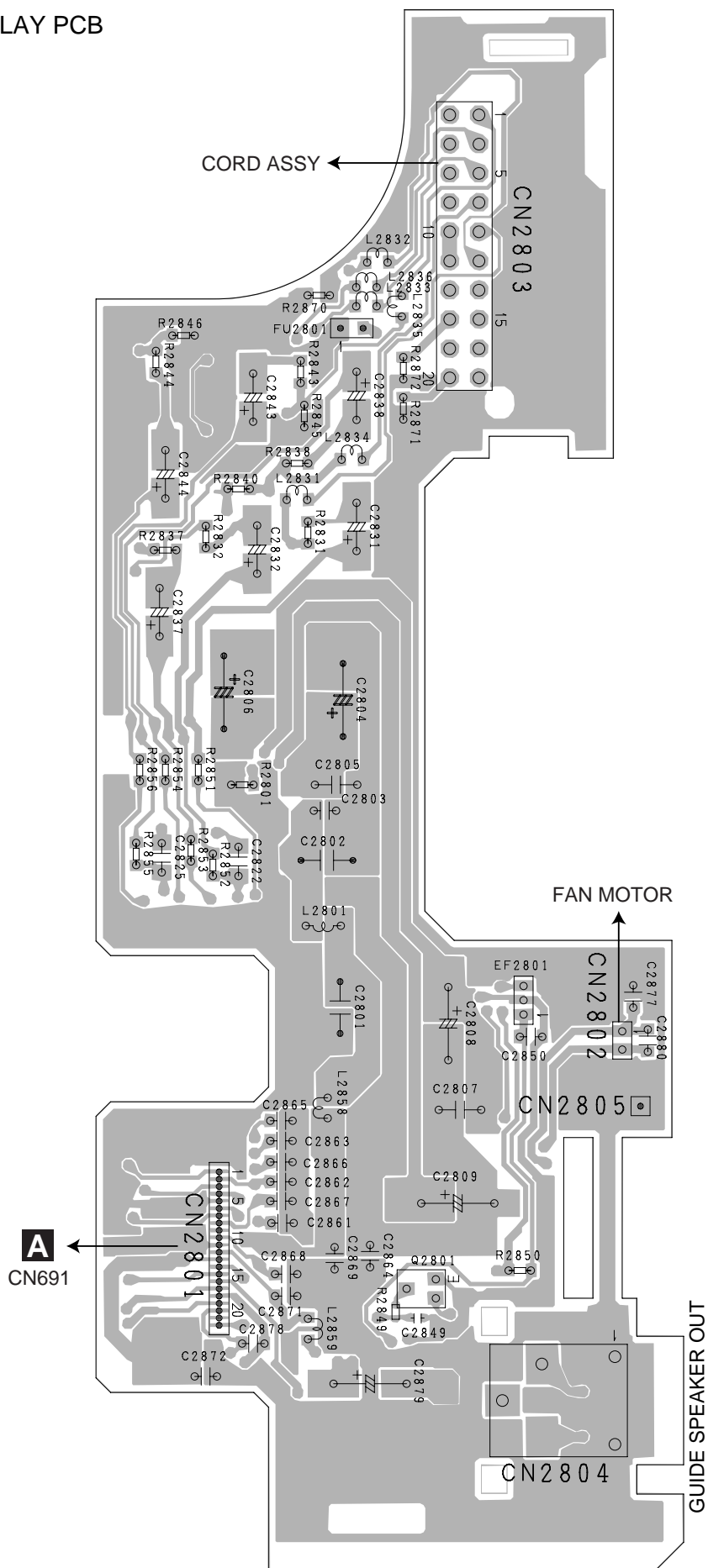


## 4.10 RELAY PCB

**J** RELAY PCB

**SIDE A**

IC,Q



Q2801



# J RELAY PCB

SIDE B

IC,Q

Q2846

Q2845

Q2833

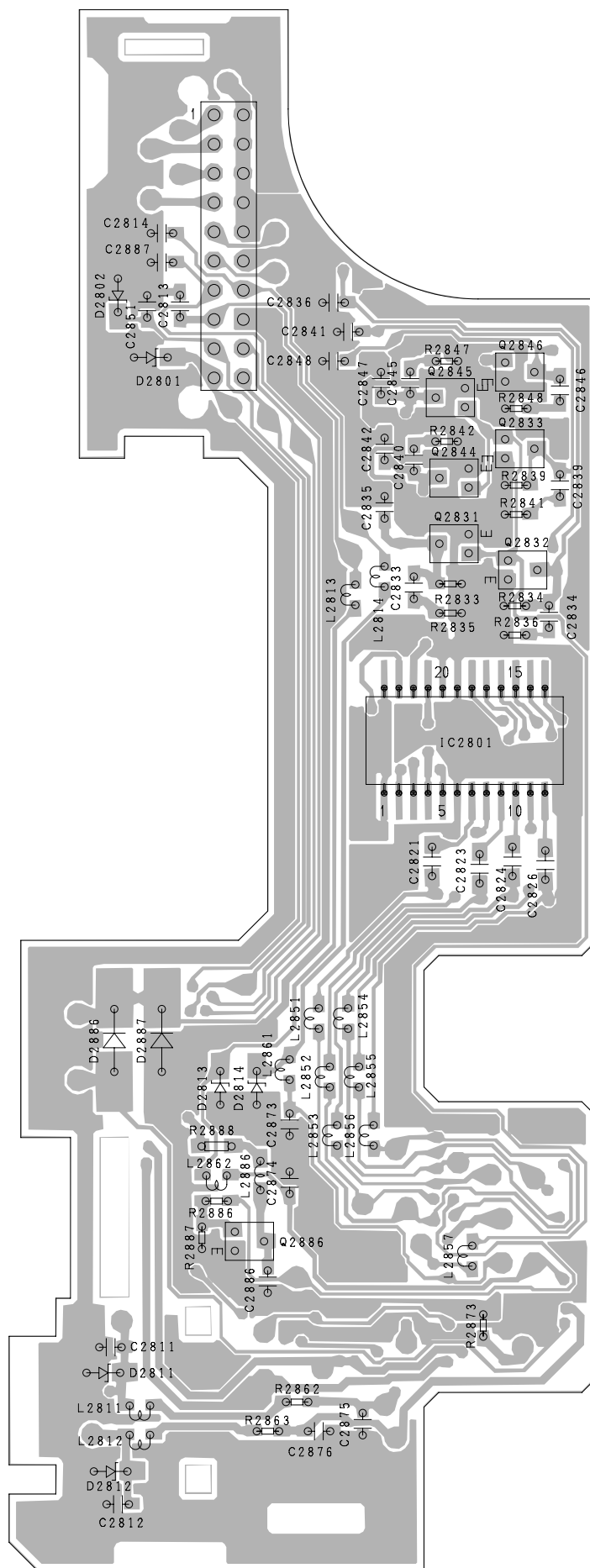
Q2844

Q2831

Q2832

IC2801

Q2886



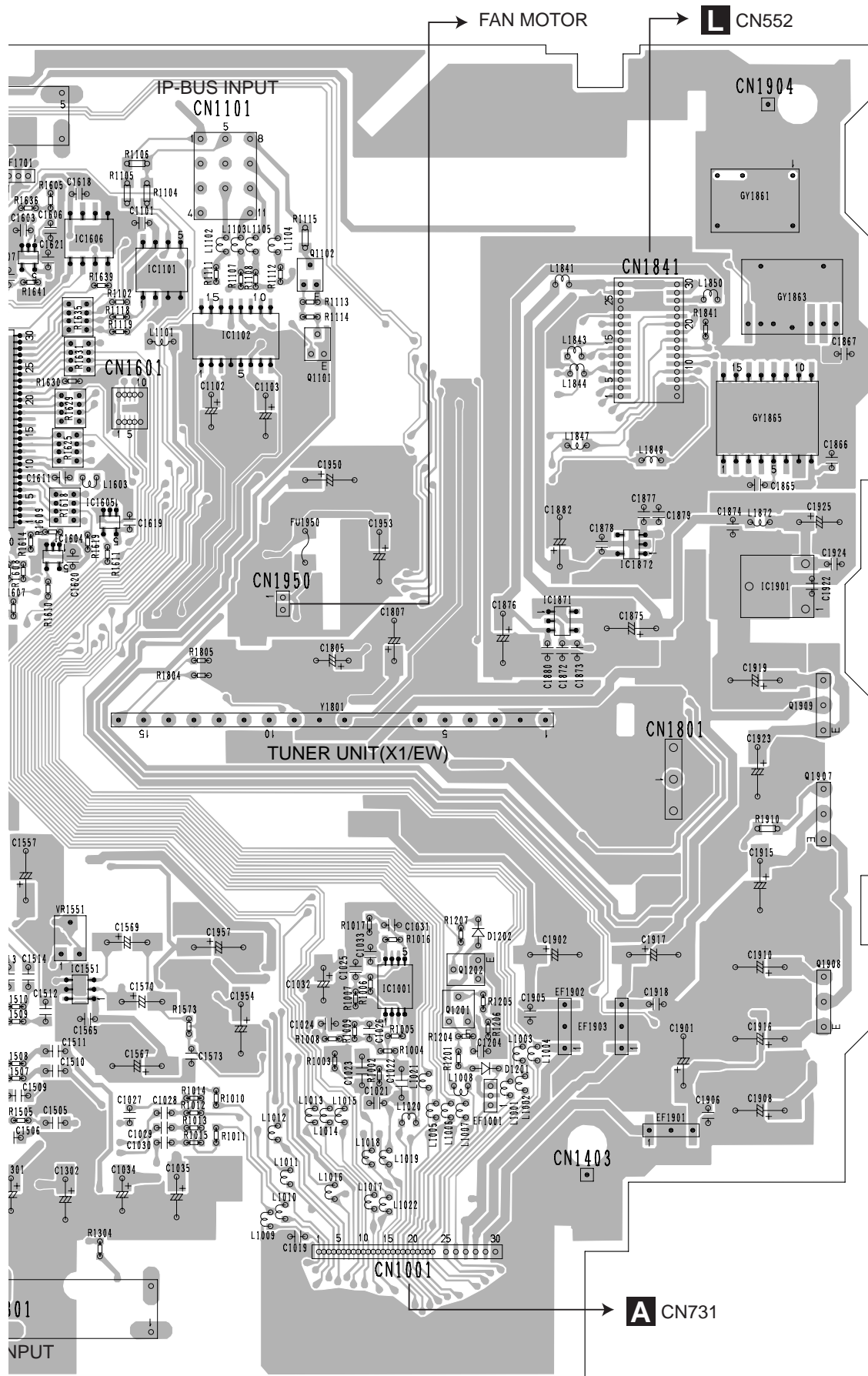






SIDE A

A



FRONT

AVIC-N1/UC

F

E

D

C

B







## SIDE B

A

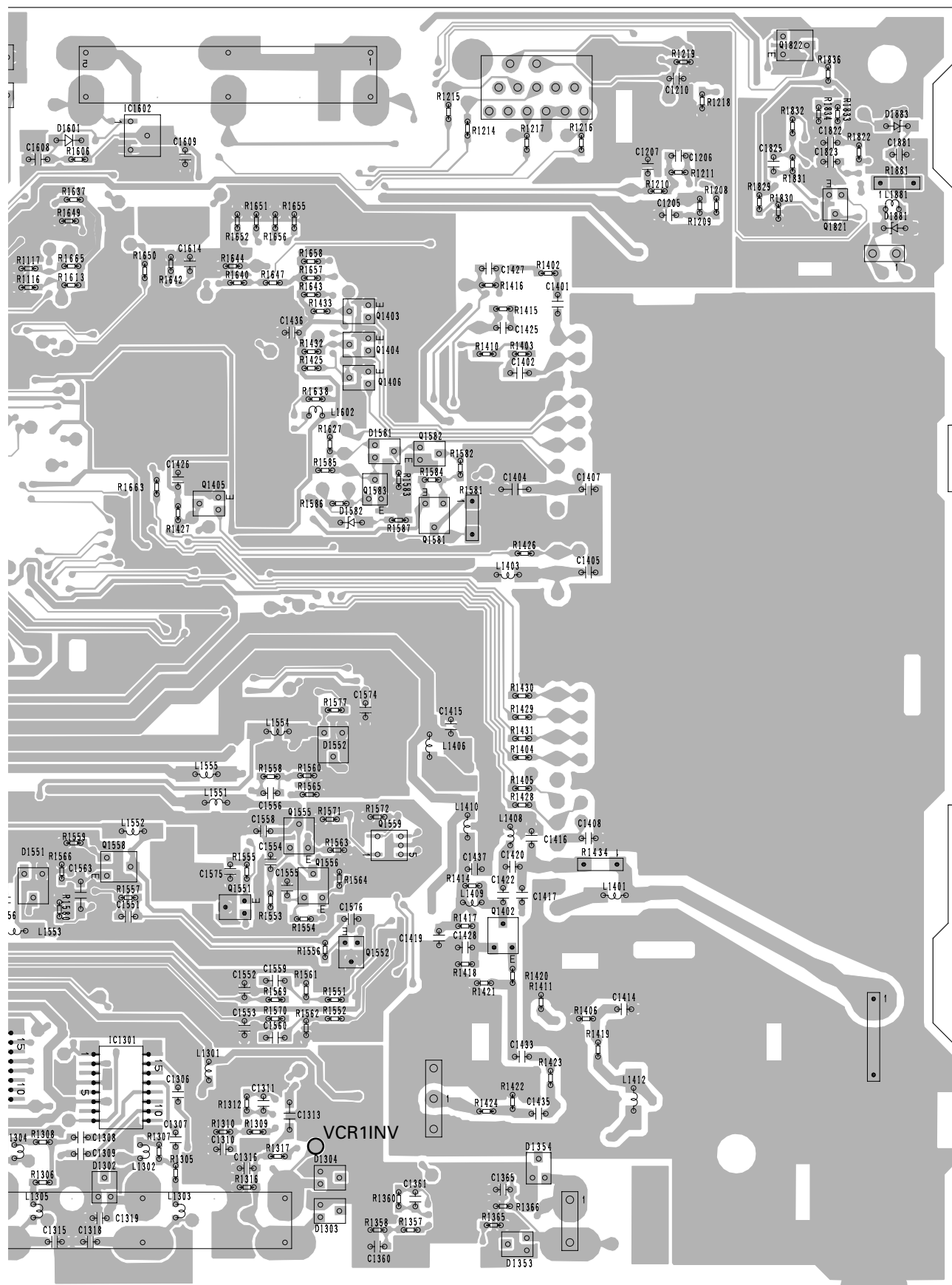
**B**

C

D

E

F





## 4.12 GPS UNIT

A

**P** GPS UNIT

**SIDE A**

IC,Q

IC401

IC504  
Q441  
IC441

IC532

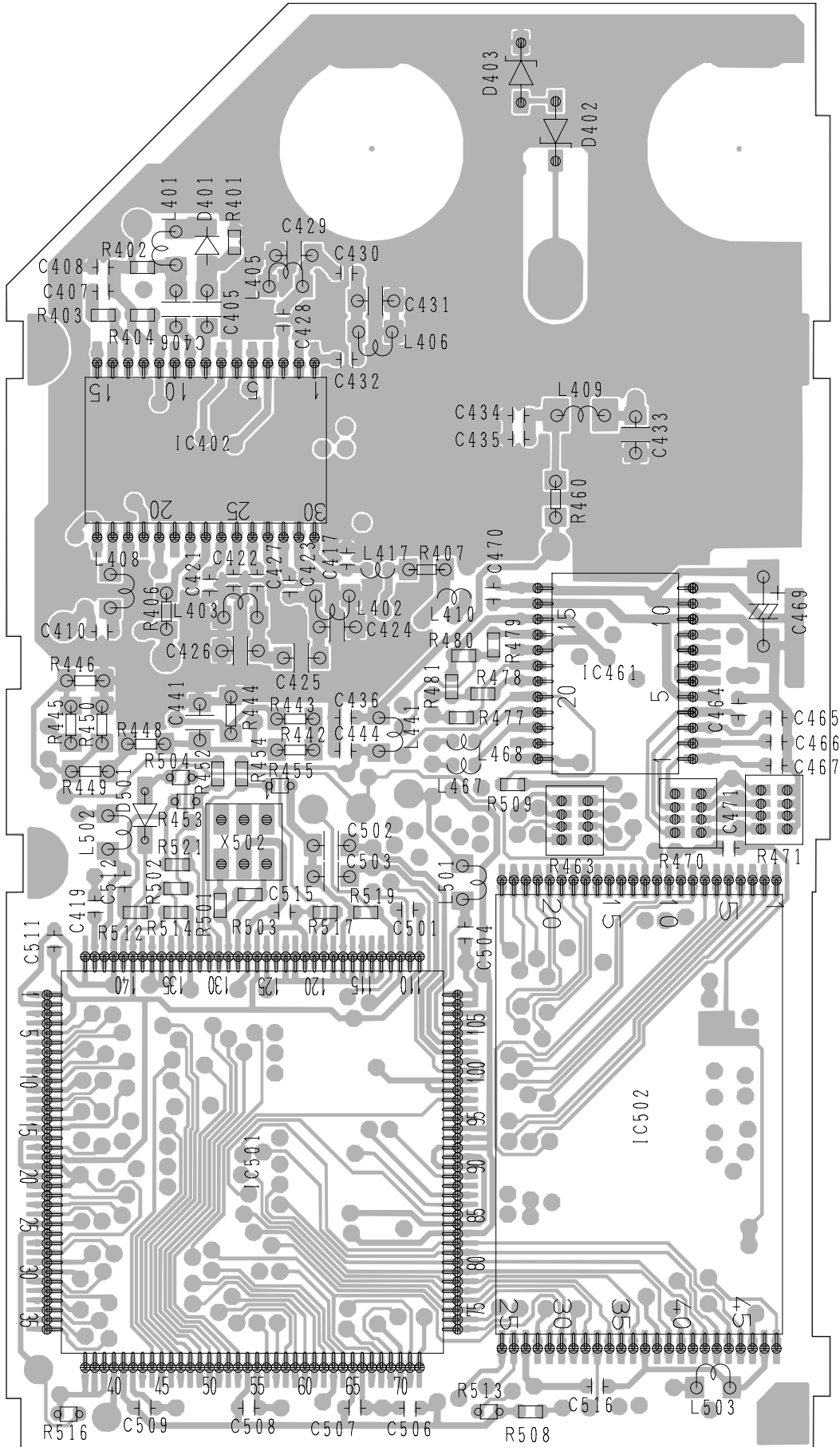
IC503

**L**  
CN551

CN461

AVIC-N1/UC





IC,Q

IC402

IC461

IC502

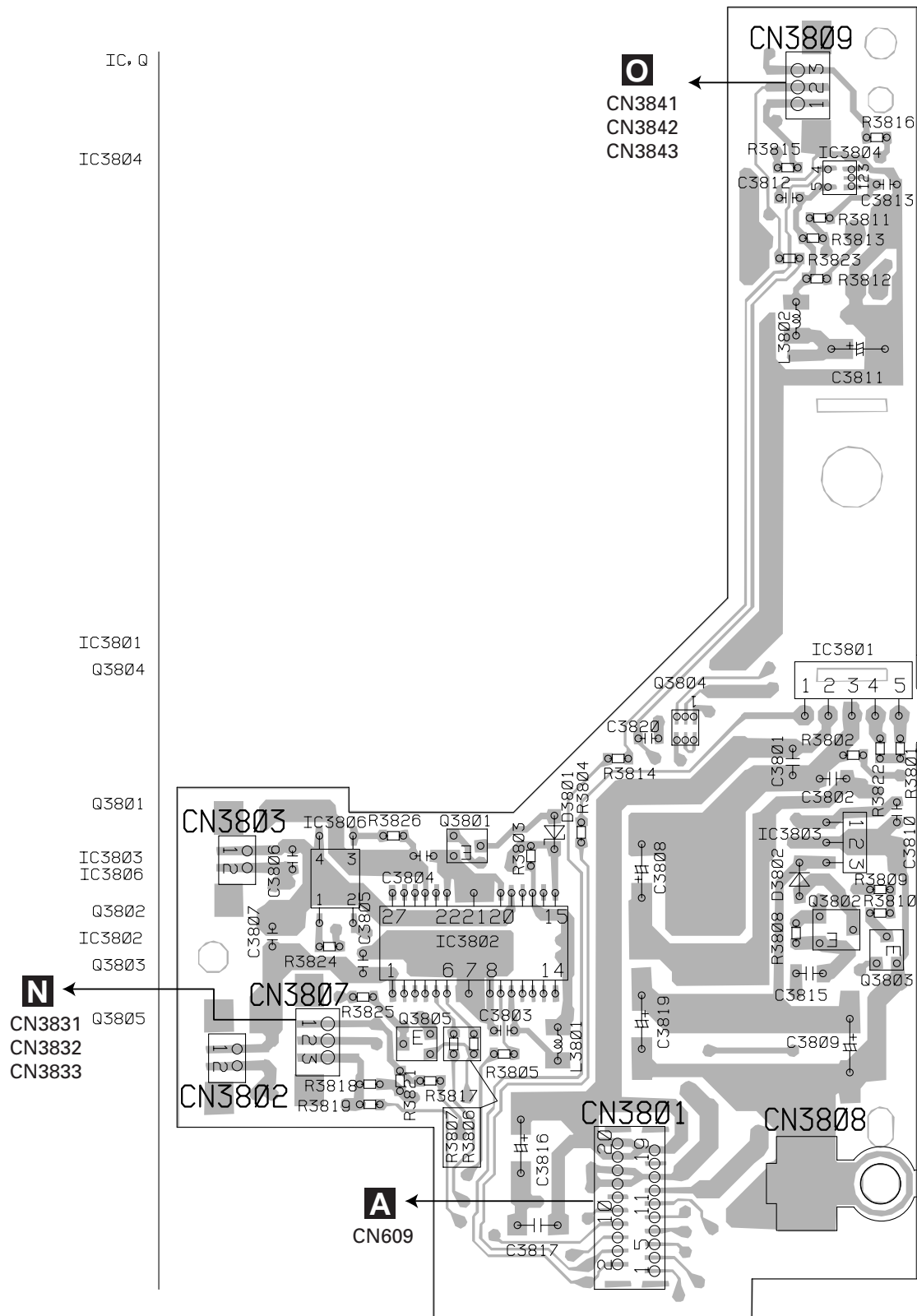
IC501



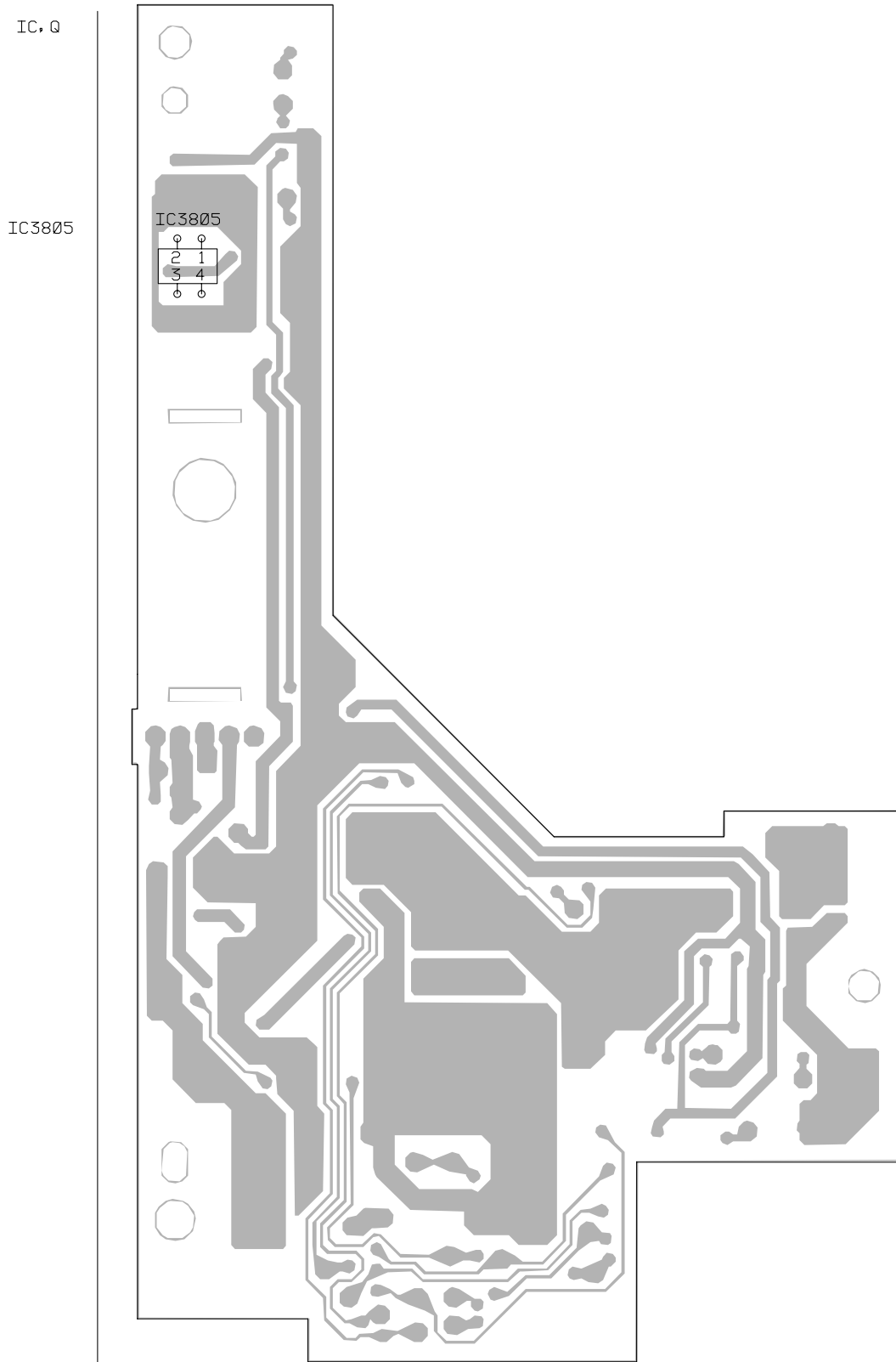
## 4.13 MAIN UNIT

**M** MAIN UNIT

**SIDE A**



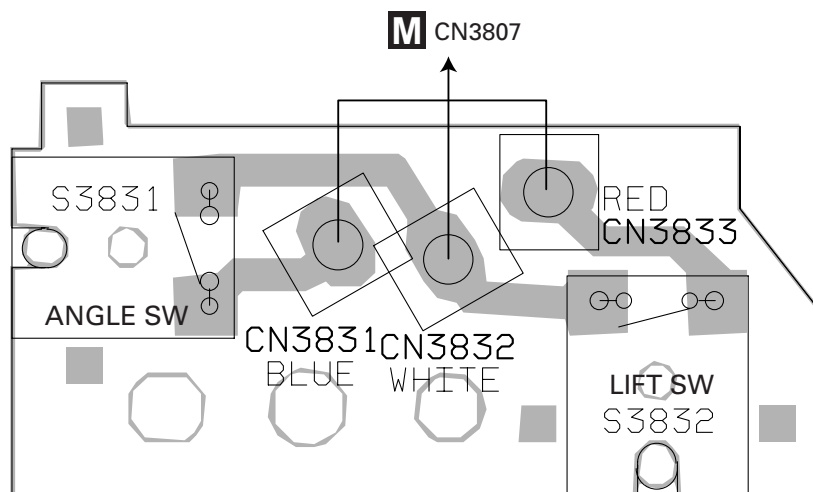


**M** MAIN UNIT**SIDE B**

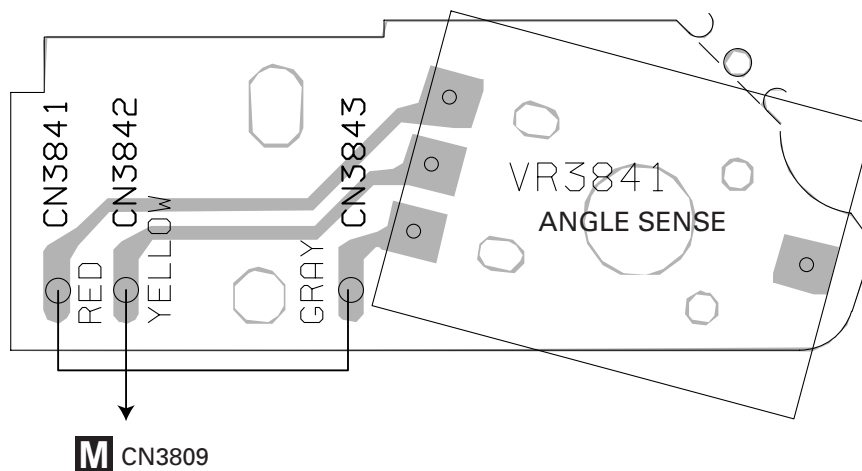


## 4.14 SW UNIT AND VOLUME UNIT

### **N** SW UNIT



### **O** VOLUME UNIT



**NO**



## 5. ELECTRICAL PARTS LIST

### NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

#### Chip Resistor

RS1/○S○○○○J, RS1/○○S○○○○J

#### Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

**A**

Unit Number:CWM9128(AVIC-X1/EW)

Unit Number:CWM9129(AVIC-N1/UC)

Unit Name:CC Unit

### MISCELLANEOUS

Circuit Symbol and No.	Part No.	Circuit Symbol and No.	Part No.
IC 1	IC	K4S561632E-TL75	
IC 2	IC	UPD705103GM-180	
IC 3	IC	HY57V561620CLT-H	
IC 4	IC	TC7SZ08FU	
IC 5	IC	PD6336B	
IC 101	IC	TC74LCX08FT	
IC 102	IC	TC7SH04FU	
IC 103	IC	TC74LCX245FT	
IC 104	IC	TC74LCX245FT	
IC 105	IC	TC74LCX245FT	
IC 106	IC	TC74LCX245FT	
IC 107	IC	TC74LCX541FT	
IC 108	IC	TC74LCX541FT	
IC 109	IC	TC74LCX541FT	
IC 110	IC(X1/EW)	PD6461A	
	IC(N1/UC)	PD6466A	
IC 111	IC(X1/EW)	PD6462A	
	IC(N1/UC)	PD6467A	
IC 112	IC	TC7SH00FU	
IC 113	IC	M5M5V216ATP-70HI	
IC 114	IC	TC7SH08FU	
IC 201	IC	MB86291APFVS-G-DL	
IC 301	IC	M51957BFP	
IC 302	IC	TC7SH08FU	
IC 304	IC	AK4351VT	
IC 305	IC	AK5381VT	
IC 309	IC	TC7SH08FU	
IC 601	IC	PD5937A	
IC 602	IC	TC74VHCT08AFT	
IC 603	IC	TC7SH08FU	
IC 604	IC	TC7SH08FU	
IC 605	IC	TC7SH08FU	
IC 608	IC	TC7WT125FU	
IC 611	IC	TC7S04FU	
IC 612	IC	S-80840CNMC-B8Z	
IC 613	IC	TC7SH00FU	
IC 691	IC	UPD4721GS	
IC 751	IC	CXA1645M	
IC 752	IC	NJM2137V	
IC 753	IC	NJM2235V	
IC 754	IC	NJM2561F1	
IC 755	IC	NJM2561F1	
IC 756	IC	NJM2235V	
IC 757	IC	TC7SET08FU	
IC 758	IC	TC7SZ08FU	
IC 801	IC	PQ018EZ01Z	
IC 803	IC	TPS5102IDBT	
IC 804	IC	TPS5102IDBT	
IC 805	IC	TPS5103IDB	
IC 806	IC	S-L2980A33MC-C6S	
IC 807	IC	TPD1018F	
IC 808	IC	S-812C52AUA-C3G	
IC 810	IC	S-812C56AUA-C3K	
IC 2401	IC	PML009A	
IC 2402	IC	TC7W66FU	
IC 2403	IC	TDA7052BT	
IC 2404	IC	NJM2058V	
IC 2405	IC	PAL007A	
IC 2407	IC	NJM3403AV	
IC 2408	IC	NJM2107F	
IC 2551	IC	TC7WT125FU	
IC 2552	IC	NJM2068V	
IC 2553	IC	NJM2068V	
IC 2601	IC	NJM3403AV	
IC 2701	IC	TC7SH08FU	
IC 2702	IC	TC7SH14FU	
Q 201	Transistor	UMD2N	
Q 301	Transistor	DTC114EU	
Q 601	Transistor	2SC4081	
Q 602	Transistor	UMD2N	
Q 621	Transistor	IMD2A	
Q 691	Transistor	2SD1767	
Q 692	Transistor	IMD3A	
Q 704	Transistor	2SA1576	
Q 731	Transistor	IMD3A	
Q 751	Transistor	2SC4081	
Q 752	Transistor	2SC4081	
Q 754	Transistor	2SC4081	
Q 801	Transistor	2SB1260	
Q 802	Transistor	DTC114EU	
Q 803	Transistor	2SA1834F5	
Q 804	Transistor	DTC114EU	
Q 805	FET	RSQ030P03	
Q 806	Transistor	DTC144EU	
Q 807	Transistor	2SB1260	
Q 808	Transistor	DTC114EU	
Q 809	Transistor	2SA1797	
Q 810	Transistor	DTC114EU	



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

Q 811 FET RK4936  
Q 814 Transistor DTC114EU

Q 2711 Transistor(X1/EW) UMH1N  
Q 2712 Transistor(X1/EW) 2SA1577

Q 815 FET RK4936  
Q 816 FET RK4936  
Q 819 FET RK4936  
Q 820 FET RK4936  
Q 821 Transistor 2SA1834F5

Q 2713 Transistor IMD2A  
Q 2714 Transistor 2SA1576  
Q 2715 Transistor 2SD1767  
Q 2716 Transistor DTC124EU  
Q 2717 Transistor DTC114EU

Q 822 Transistor DTC114EU  
Q 823 Transistor 2SC4081  
Q 824 Transistor 2SB1184F5  
Q 825 Transistor 2SC4081  
Q 828 Transistor IMX1

D 610 Diode 1SS355  
D 691 Diode HZU8R2(B1)  
D 692 Diode UDZS20(B)  
D 693 Diode UDZS20(B)  
D 694 Diode UDZS20(B)

Q 829 Transistor 2SB1184F5  
Q 830 Transistor UMF23N  
Q 832 FET RSQ030P03  
Q 835 Transistor 2SC4081  
Q 837 Transistor 2SC4081

D 695 Diode UDZS20(B)  
D 696 Diode UDZS20(B)  
D 697 Diode UDZS20(B)  
D 698 Diode UDZS20(B)  
D 699 Diode UDZS20(B)

Q 838 Transistor DTC144EU  
Q 839 Transistor UMD2N  
Q 840 Transistor 2SA1576  
Q 843 Transistor 2SD1767  
Q 951 Transistor DTC124EU

D 707 Diode DAN202U  
D 708 Diode 5KP22A  
D 731 Diode UDZS6R8(B)  
D 732 Diode UDZS6R8(B)  
D 733 Diode UDZS6R8(B)

Q 971 Transistor IMX2  
Q 972 Transistor IMD3A  
Q 973 Transistor 2SD1767  
Q 2401 Transistor UMD2N  
Q 2402 Transistor DTC323TU

D 734 Diode UDZS6R8(B)  
D 735 Diode UDZS6R8(B)  
D 736 Diode UMZ6R8N  
D 737 Diode UMZ6R8N  
D 738 Diode UMZ6R8N

Q 2403 Transistor DTC323TU  
Q 2408 Transistor UMD2N  
Q 2409 Transistor DTC323TU  
Q 2410 Transistor UMD2N  
Q 2414 Transistor DTC124EU

D 739 Diode UMZ6R8N  
D 740 Diode UMZ6R8N  
D 742 Diode UDZS6R8(B)  
D 743 Diode UDZS6R8(B)  
D 744 Diode UDZS6R8(B)

Q 2415 Transistor DTC124EU  
Q 2416 Transistor UMD2N  
Q 2417 Transistor DTC323TU  
Q 2418 Transistor DTC323TU  
Q 2419 Transistor UMD2N

D 745 Diode UDZS6R8(B)  
D 746 Diode UDZS6R8(B)  
D 747 Diode UDZS6R8(B)  
D 748 Diode UDZS6R8(B)  
D 749 Diode UDZS6R8(B)

Q 2420 Transistor DTC114EU  
Q 2421 Transistor UMD2N  
Q 2422 Transistor 2SC4081  
Q 2427 Transistor DTC124EU  
Q 2428 Transistor DTC124EU

D 750 Diode UDZS10(B)  
D 753 Diode UDZS6R8(B)  
D 754 Diode UDZS6R8(B)  
D 802 Diode RB400D  
D 803 Diode RB400D

Q 2603 Transistor UMD2N  
Q 2604 Transistor DTC323TU  
Q 2605 Transistor DTC323TU  
Q 2606 Transistor UMD2N  
Q 2607 Transistor DTC323TU

D 804 Diode RB400D  
D 805 Diode RB400D  
D 806 Diode RB400D  
D 807 Diode RB060L-40  
D 808 Diode RB060L-40

Q 2608 Transistor UMD2N  
Q 2610 Transistor UMD2N  
Q 2611 Transistor UMD2N  
Q 2701 Transistor DTC114TU  
Q 2702 Transistor DTC144EU

D 809 Diode RB060L-40  
D 810 Diode RB060L-40  
D 812 Diode HZU6R8(B2)  
D 814 Diode KS926S2  
D 815 Diode HZU7R5(B3)

Q 2703 Transistor 2SA1577  
Q 2704 Transistor UMH1N  
Q 2705 Transistor 2SA1577  
Q 2706 Transistor IMD2A  
Q 2707 Transistor DTC144EU

D 816 Diode UDZS18(B)  
D 817 Diode UDZS20(B)  
D 818 Diode RB060L-40  
D 820 Diode S1G-6904G2P  
D 821 Diode 1SS355

Q 2708 Transistor 2SA1577  
Q 2709 Transistor(X1/EW) DTC144EU  
Q 2710 Transistor(X1/EW) 2SA1577

D 822 Diode 1SS355  
D 828 Diode S1G-6904G2P  
D 830 Diode RB500V-40



<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>
D 831	Diode	RB500V-40	L 207	Inductor	CTF1379
D 832	Diode	S1G-6904G2P	L 301	Inductor	CTF1557
D 833	Diode	1SS400	L 302	Inductor	CTF1557
D 971	Diode	RB751V40	L 305	Inductor	CTF1556
D 972	Diode	RB751V40	L 306	Inductor	CTF1556
D 973	Diode	HZU8R2(B1)	L 307	Inductor	CTF1556
D 974	Diode	UDZ12(B)	L 308	Inductor	CTF1334
D 2404	Diode	DAN202U	L 312	Inductor	CTF1410
D 2405	Diode	DAP202U	L 601	Inductor	CTF1334
D 2406	Diode	1SS355	L 602	Inductor	CTF1334
D 2407	Diode	UDZS4R7(B)	L 603	Inductor	CTF1334
D 2408	Diode	DAP202U	L 604	Inductor	CTF1334
D 2409	Diode	UDZS8R2(B)	L 605	Inductor	CTF1334
D 2410	Diode	DAN202U	L 606	Inductor	CTF1334
D 2411	Diode	DAN202U	L 607	Inductor	CTF1334
D 2412	Diode	DAN202U	L 610	Inductor	CTF1334
D 2413	Diode	DAN202U	L 613	Inductor	CTF1334
D 2551	Diode	UDZS6R8(B)	L 616	Inductor	CTF1334
D 2701	Diode	1SS355	L 617	Inductor	CTF1334
D 2702	Diode Network	DA204U	L 619	Inductor	CTF1306
D 2703	Diode Network	DA204U	L 620	Inductor	CTF1306
D 2704	Diode	UDZS5R6(B)	L 621	Inductor	CTF1306
D 2705	Diode Network	DA204U	L 622	Inductor	CTF1384
D 2706	Diode Network	DA204U	L 623	Inductor	CTF1387
D 2707	Diode Network	DA204U	L 624	Inductor	CTF1334
D 2708	Diode Network	DA204U	L 625	Inductor	CTF1306
D 2709	Diode Network	DA204U	L 626	Inductor	CTF1306
D 2710	Diode Network	DA204U	L 627	Inductor	CTF1306
D 2711	Diode Network	DA204U	L 628	Inductor	CTF1306
D 2712	Diode	HZU8R2(B1)	L 629	Inductor	CTF1306
D 2713	Diode	HZU5R6(B2)	L 630	Inductor	CTF1306
D 2714	Diode	DAP202U	L 631	Inductor	CTF1334
D 2715	Diode	DAP202U	L 632	Inductor	CTF1334
D 2821	Diode	RB500V-40	L 633	Inductor	CTF1334
L 1	Inductor	CTF1558	L 634	Inductor	CTF1334
L 2	Inductor	CTF1558	L 635	Inductor	CTF1306
L 3	Inductor	CTF1410	L 636	Inductor	CTF1334
L 5	Inductor	CTF1556	L 637	Inductor	CTF1306
L 6	Inductor	CTF1295	L 638	Inductor	CTF1306
L 7	Inductor	CTF1558	L 639	Inductor	CTF1306
L 8	Inductor	CTF1556	L 640	Inductor	CTF1306
L 101	Inductor	CTF1557	L 641	Inductor	CTF1306
L 102	Inductor	CTF1557	L 644	Inductor	CTF1306
L 103	Inductor	CTF1557	L 645	Inductor	CTF1306
L 104	Inductor	CTF1557	L 646	Inductor	CTF1334
L 105	Inductor	CTF1557	L 647	Inductor	CTF1334
L 106	Inductor	CTF1557	L 648	Inductor	CTF1378
L 107	Inductor	CTF1557	L 649	Inductor	CTF1378
L 108	Inductor	CTF1557	L 650	Inductor	CTF1378
L 109	Inductor	CTF1557	L 651	Inductor	CTF1378
L 110	Inductor	CTF1556	L 652	Inductor	CTF1334
L 111	Inductor	CTF1556	L 653	Inductor	CTF1467
L 112	Inductor	CTF1556	L 654	Inductor	CTF1306
L 113	Inductor	CTF1557	L 660	Inductor	CTF1463
L 114	Inductor	CTF1557	L 661	Inductor	CTF1386
L 201	Inductor	CTF1556	L 662	Inductor	CTF1306
L 203	Inductor	CTF1556	L 663	Inductor	CTF1306
L 204	Inductor	CTF1488	L 665	Inductor	CTF1306
L 205	Inductor	CTF1556	L 667	Inductor	CTF1467
L 206	Inductor	CTF1556	L 668	Inductor	CTF1334



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

L 669 Inductor  
L 670 Inductor

CTF1306  
CTF1306

L 734 Inductor  
L 735 Inductor

CTF1295  
CTF1295

L 671 Inductor  
L 672 Inductor  
L 673 Inductor  
L 674 Inductor  
L 675 Inductor

CTF1306  
CTF1306  
CTF1306  
CTF1306  
CTF1463

L 736 Inductor  
L 737 Inductor  
L 738 Inductor  
L 739 Inductor  
L 740 Inductor

CTF1295  
CTF1295  
CTF1295  
CTF1295  
CTF1410

L 676 Inductor  
L 677 Inductor  
L 678 Inductor  
L 679 Inductor  
L 680 Inductor

CTF1463  
CTF1463  
CTF1463  
CTF1453  
CTF1463

L 741 Inductor  
L 742 Inductor  
L 744 Inductor  
L 745 Inductor  
L 746 Inductor

CTF1295  
CTF1295  
CTF1334  
CTF1334  
CTF1334

L 681 Inductor  
L 682 Inductor  
L 683 Inductor  
L 684 Inductor  
L 685 Inductor

CTF1306  
CTF1357  
CTF1357  
CTF1357  
CTF1357

L 748 Inductor  
L 749 Inductor  
L 751 Inductor  
L 753 Inductor  
L 754 Inductor

CTF1334  
CTF1334  
CTF1334  
LCTA680J3225  
CTF1334

L 686 Inductor  
L 687 Inductor  
L 688 Inductor  
L 689 Inductor  
L 690 Inductor

CTF1306  
CTF1306  
CTF1357  
CTF1306  
CTF1334

L 755 Inductor  
L 756 Inductor  
L 757 Inductor  
L 758 Inductor  
L 759 Inductor

CTF1334  
CTF1306  
CTF1306  
CTF1306  
CTF1334

L 691 Inductor  
L 692 Inductor  
L 693 Inductor  
L 694 Inductor  
L 695 Inductor

CTF1334  
CTF1306  
CTF1384  
CTF1306  
CTF1463

L 760 Inductor  
L 761 Inductor  
L 762 Inductor  
L 763 Inductor  
L 764 Inductor

CTF1334  
LCYC2R2K1608  
LCYC2R2K1608  
LCYC2R2K1608  
LCYC2R2K1608

L 696 Inductor  
L 697 Inductor  
L 698 Inductor  
L 699 Inductor  
L 700 Inductor

CTF1306  
CTF1306  
CTF1629  
CTF1334  
CTF1306

L 765 Inductor  
L 766 Inductor  
L 767 Inductor  
L 768 Inductor  
L 771 Inductor

LCYC2R2K1608  
LCYC2R2K1608  
CTF1334  
CTF1334  
CTF1453

L 701 Inductor  
L 702 Inductor  
L 703 Inductor  
L 704 Inductor  
L 705 Inductor

CTF1629  
LCYC2R2K1608  
CTF1306  
CTF1306  
CTF1306

L 772 Inductor  
L 793 Inductor  
L 794 Inductor  
L 795 Inductor  
L 796 Inductor

CTF1453  
CTF1334  
CTF1306  
CTF1306  
CTF1306

L 706 Inductor  
L 707 Inductor  
L 708 Inductor  
L 709 Inductor  
L 710 Inductor

CTF1306  
CTF1306  
CTF1306  
CTF1306  
CTF1306

L 801 Inductor  
L 802 Inductor  
L 803 Inductor  
L 804 Inductor  
L 805 Inductor

CTH1254  
CTH1257  
CTH1254  
CTH1255  
CTH1257

L 711 Inductor  
L 712 Inductor  
L 713 Inductor  
L 714 Inductor  
L 715 Inductor

CTF1306  
CTF1629  
CTF1306  
CTF1306  
CTF1306

L 806 Inductor  
L 807 Inductor  
L 808 Inductor  
L 809 Inductor  
L 810 Choke Coil 100μH

CTH1257  
CTH1262  
CTH1253  
CTH1253  
CTH1315

L 716 Inductor  
L 717 Inductor  
L 718 Inductor  
L 719 Inductor  
L 721 Inductor

CTF1306  
CTF1306  
CTF1410  
CTF1334  
CTF1306

L 811 Inductor  
L 812 Inductor  
L 815 Inductor  
L 816 Inductor  
L 817 Inductor

CTF1556  
CTF1453  
CTF1556  
CTF1306  
LCKBW1R0M2520

L 722 Inductor  
L 723 Inductor  
L 724 Inductor  
L 725 Inductor  
L 726 Inductor

CTF1306  
CTF1306  
CTF1306  
CTF1306  
CTF1306

L 818 Inductor  
L 981 Inductor  
L 982 Inductor  
L 983 Inductor  
L 984 Inductor

LCKAW220J2520  
CTF1453  
CTF1463  
CTF1463  
CTF1463

L 727 Inductor  
L 732 Inductor  
L 733 Inductor

CTF1306  
CTF1295  
CTF1295

L 985 Inductor  
L 2402 Inductor  
L 2404 Inductor

CTF1463  
CTF1306  
LCTA2R2J2520



Circuit Symbol and No.			Part No.	Circuit Symbol and No.			Part No.
L 2551	Inductor		CTF1379	R 3			RS1/16S0R0J
L 2554	Inductor		CTF1334	R 5			RS1/16S473J
				R 6			RS1/16S473J
L 2555	Inductor		CTF1334	R 7			RS1/16S220J
L 2601	Inductor		CTF1334				
L 2701	Inductor		CTF1399	R 8			RS1/16S473J
L 2702	Inductor		CTF1334	R 10			RS1/16S104J
L 2703	Inductor		CTF1334	R 11			RAB4C473J
				R 12			RS1/16S105J
L 2704	Inductor		CTF1306	R 13			RS1/16S151J
L 2705	Inductor		CTF1306				
L 2706	Inductor		CTF1306	R 14			RS1/16S0R0J
L 2707	Inductor		CTF1306	R 16			RS1/16S0R0J
L 2708	Inductor		CTF1306	R 19			RS1/16S473J
				R 20			RS1/16S101J
L 2709	Inductor		CTF1306	R 21			RS1/16S101J
L 2710	Inductor		CTF1306				
L 2711	Inductor		CTF1306	R 22			RS1/16S101J
L 2712	Inductor		CTF1334	R 23			RS1/16S105J
L 2713	Inductor		CTF1334	R 24			RS1/16S151J
				R 25			RS1/16S101J
L 2714	Inductor		CTF1334	R 26			RS1/16S101J
L 2715	Inductor(X1/EW)		CTF1334				
L 2716	Inductor		CTF1334	R 27			RS1/16S101J
L 2717	Inductor		CTF1306	R 28			RS1/16S101J
L 2800	Inductor		CTF1305	R 29			RS1/16S101J
				R 30			RS1/16S101J
TH601	Thermistor		CCX1056	R 31			RS1/16S101J
X 1	Radiator 30.000MHz		CSS1633				
X 2	Radiator 33.000MHz		CSS1634	R 32			RS1/16S473J
X 3	Radiator 33.8688MHz		CSS1551	R 33			RS1/16S473J
X 202	Radiator 14.31818MHz		CSS1632	R 34			RS1/16S105J
				R 35			RS1/16S104J
X 601	Radiator 10.0MHz		CSS1577	R 36			RS1/16S101J
VR751	Semi-fixed 1kΩ(OB)		CCP1390				
FU691	Fuse 2.5A		CEK1285	R 37			RS1/16S101J
FU801	Fuse 1.25A		CEK1255	R 38			RS1/16S101J
FU802	Fuse 4A		CEK1288	R 39			RS1/16S101J
				R 40			RS1/16S470J
FU803	Fuse 375mA		CEK1277	R 45			RS1/16S104J
FU804	Fuse 2.5A		CEK1285				
FU805	Fuse 2.5A		CEK1285	R 46			RS1/16S104J
FU806	Fuse 1A		CEK1254	R 47			RS1/16S104J
FU807	Fuse 1A		CEK1280	R 48			RS1/16S104J
				R 49			RS1/16S104J
FU808	Fuse 4A		CEK1260	R 50			RS1/16S104J
FU809	Fuse 2A		CEK1284				
FU810	Fuse 500mA		CEK1278	R 51			RS1/16SS101J
FU811	Fuse 2A		CEK1284	R 52			RS1/16SS101J
FU812	Fuse 250mA		CEK1276	R 53			RS1/16SS101J
				R 54			RS1/16SS101J
FU813	Fuse 2.5A		CEK1285	R 55			RS1/16SS101J
FU814	Fuse 250mA		CEK1276				
FU815	Fuse 1A		CEK1280	R 57			RS1/16SS101J
FU971	Fuse 375mA		CEK1277	R 59			RS1/16SS101J
FU2701	Fuse 250mA		CEK1276	R 60			RS1/16SS101J
				R 61			RS1/16SS0R0J
EF731	EMI Filter		CCG1082	R 62			RS1/16SS101J
EF732	EMI Filter		CCG1082				
EF733	EMI Filter		CCG1067	R 63			RS1/16SS101J
EF734	EMI Filter		CCG1067	R 64			RS1/16SS101J
EF735	EMI Filter		CCG1067	R 65			RS1/16SS101J
				R 66			RS1/16SS101J
EF736	EMI Filter		CCG1067	R 67			RS1/16SS101J
EF801	EMI Filter		CCG1172				
EF802	EMI Filter		CCG1172	R 68			RS1/16SS101J
EF803	EMI Filter		CCG1172	R 69			RS1/16SS101J
				R 70			RS1/16SS101J
				R 71			RS1/16SS101J
				R 72			RS1/16SS101J
<b>RESISTORS</b>							
R 1			RS1/16S0R0J	R 73			RS1/16SS101J



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

R 74 RS1/16SS101J  
 R 75 RS1/16SS101J  
 R 76 RS1/16SS101J  
 R 77 RS1/16SS101J

R 188 RS1/16S473J  
 R 189 RS1/16S473J  
 R 190 RS1/16S473J  
 R 191 RS1/16S473J

R 78 RS1/16SS101J  
 R 79 RS1/16SS101J  
 R 80 RS1/16SS101J  
 R 81 RS1/16SS101J  
 R 82 RS1/16SS101J

R 192 RS1/16S473J  
 R 193 RS1/16S473J  
 R 194 RS1/16S390J  
 R 196 RS1/16S473J  
 R 201 RN1/16SE1502D

R 84 RS1/16SS562J  
 R 85 RS1/16SS103J  
 R 87 RS1/16S104J  
 R 88 RS1/16S104J  
 R 89 RS1/16S0R0J

R 202 RN1/16SE1202D  
 R 210 RS1/16S104J  
 R 211 RS1/16S104J  
 R 212 RS1/16S104J  
 R 213 RS1/16S104J

R 90 RS1/16S0R0J  
 R 93 RS1/16S153J  
 R 94 RS1/16S153J  
 R 95 RS1/16S153J  
 R 96 RS1/16S153J

R 217 RS1/16S272J  
 R 220 RS1/16S223J  
 R 221 RS1/16S105J  
 R 222 RS1/16S151J  
 R 224 RS1/16S0R0J

R 97 RS1/16S473J  
 R 98 RS1/16S473J  
 R 101 RS1/16S473J  
 R 102 RS1/16S473J  
 R 103 RS1/16S473J

R 225 RS1/16S104J  
 R 226 RS1/16S104J  
 R 227 RS1/16S104J  
 R 228 RS1/16S104J  
 R 229 RS1/16S560J

R 104 RS1/16S220J  
 R 151 RS1/16S0R0J  
 R 152 RS1/16S0R0J  
 R 153 RS1/16S471J  
 R 154 RS1/16S473J

R 230 RS1/16S104J  
 R 232 RS1/16S104J  
 R 237 RS1/16S104J  
 R 238 RS1/16S330J  
 R 240 RS1/16S104J

R 155 RS1/16S473J  
 R 156 RS1/16S473J  
 R 157 RS1/16S473J  
 R 158 RS1/16S473J  
 R 159 RS1/16S473J

R 301 RS1/16S123J  
 R 302 RS1/16S103J  
 R 303 RS1/16S473J  
 R 320 RS1/16S103J  
 R 329 RS1/16SS821J

R 160 RS1/16S473J  
 R 161 RS1/16S103J  
 R 162 RS1/16S473J  
 R 163 RS1/16S560J  
 R 164 RS1/16S473J

R 330 RS1/16SS221J  
 R 331 RS1/16SS221J  
 R 332 RS1/16SS472J  
 R 333 RS1/16SS222J  
 R 334 RS1/16SS222J

R 165 RS1/16S473J  
 R 166 RS1/16S473J  
 R 167 RS1/16S473J  
 R 169 RS1/16S473J  
 R 170 RS1/16S473J

R 335 RS1/16SS221J  
 R 336 RS1/16SS221J  
 R 349 RS1/16S473J  
 R 350 RS1/16S473J  
 R 356 RS1/16S0R0J

R 171 RS1/16S473J  
 R 172 RS1/16S473J  
 R 174 RS1/16S473J  
 R 175 RS1/16S473J  
 R 176 RS1/16S0R0J

R 360 RS1/16SS473J  
 R 361 RS1/16SS473J  
 R 362 RS1/16SS473J  
 R 363 RS1/16SS473J  
 R 364 RS1/16SS473J

R 177 RS1/16S473J  
 R 178 RS1/16S473J  
 R 179 RS1/16S473J  
 R 180 RS1/16S101J  
 R 181 RS1/16S473J

R 365 RS1/16SS473J  
 R 366 RS1/16SS473J  
 R 367 RS1/16SS473J  
 R 368 RS1/16SS473J  
 R 369 RS1/16SS473J

R 182 RS1/16S473J  
 R 183 RS1/16S473J  
 R 184 RS1/16S473J  
 R 185 RS1/16S473J  
 R 186 RS1/16S473J

R 370 RS1/8S0R0J  
 R 601 RS1/16S1803D  
 R 602 RS1/16SS473J  
 R 603 RS1/16SS473J  
 R 604 RS1/16SS0R0J

R 187 RS1/16S473J

R 606 RAB4C681J



<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
R 607		RS1/16SS473J	R 693		RS1/16S681J	
R 608		RS1/16S563J	R 694		RS1/16S681J	
R 609		RS1/16S104J	R 695		RS1/16S681J	A
R 610		RS1/16S473J	R 696		RS1/16S681J	
R 611		RS1/16S472J	R 697		RS1/16S681J	
R 614	(N1/UC)	RS1/16SS473J	R 711		RS1/16S102J	
R 615	(X1/EW)	RS1/16SS473J	R 712		RS1/16S472J	
R 616		RS1/16SS681J	R 715		RS1/16S472J	
R 617		RS1/16S0R0J	R 716		RS1/16S153J	
R 618		RS1/16SS473J	R 730		RS1/16S0R0J	
R 620		RS1/16SS473J	R 732		RS1/16S102J	
R 622		RS1/16SS473J	R 733		RS1/16S102J	
R 623		RAB4C681J	R 734		RS1/16S102J	
R 625		RS1/16S473J	R 735		RS1/16S102J	B
R 626		RAB4C681J	R 736		RS1/16S0R0J	
R 627		RS1/16SS473J	R 737		RS1/16S102J	
R 628		RS1/16SS473J	R 738		RS1/16S681J	
R 629		RS1/16SS473J	R 739		RS1/16S681J	
R 631		RS1/16S681J	R 751		RS1/16SS101J	
R 632		RS1/16SS473J	R 752		RS1/16SS101J	
R 633		RS1/16SS473J	R 753		RS1/16SS101J	
R 634		RS1/16S473J	R 754		RS1/16S222J	
R 636		RS1/16S473J	R 755		RS1/16S222J	
R 637		RS1/16S473J	R 756		RS1/16S103J	
R 640		RS1/16SS101J	R 757		RS1/16S272J	C
R 641		RS1/16SS473J	R 758		RS1/16S272J	
R 642		RS1/16SS681J	R 759		RS1/16S0R0J	
R 643		RS1/16SS681J	R 760		RS1/16S301J	
R 644		RS1/16SS681J	R 761		RS1/16S1000D	
R 645		RS1/16SS681J	R 762		RN1/16SE2002D	
R 646		RAB4C681J	R 763		RS1/16S473J	
R 648		RS1/16SS681J	R 764		RS1/16S75R0D	
R 649		RS1/16SS681J	R 765		RS1/16S75R0D	
R 650		RS1/16SS104J	R 766		RS1/16S75R0D	
R 651		RS1/16S681J	R 767		RS1/16S750J	D
R 653		RS1/16S2003F	R 768		RS1/16S62R0D	
R 654		RS1/16SS473J	R 769		RS1/16S105J	
R 655		RS1/16SS681J	R 770		RS1/16S101J	
R 657		RS1/16S104J	R 772		RS1/16S105J	
R 658		RS1/16SS101J	R 773		RS1/16S750J	
R 659		RAB4C681J	R 774		RS1/16S101J	
R 660		RS1/16SS104J	R 776		RS1/16S750J	
R 661		RS1/16SS681J	R 777		RS1/16S750J	
R 662		RS1/16SS681J	R 778		RS1/16S681J	
R 663		RS1/16SS681J	R 779		RS1/16S302J	
R 664		RS1/16SS681J	R 780		RS1/16S102J	E
R 665		RAB4C681J	R 781		RS1/16S0R0J	
R 666		RAB4C681J	R 782		RS1/16S105J	
R 667		RS1/16SS681J	R 783		RS1/16S105J	
R 668		RS1/16S104J	R 784		RS1/16S105J	
R 670		RS1/16SS103J	R 785		RS1/16S105J	
R 671		RS1/16SS103J	R 794		RS1/16S563J	
R 672		RS1/16SS681J	R 795		RS1/16SS102J	
R 673		RS1/16SS102J	R 796		RS1/16S563J	
R 674		RS1/16SS102J	R 805		RS1/16S151J	
R 675		RS1/16SS681J	R 806		RS1/16S151J	
R 676		RS1/16SS681J	R 807		RS1/16S470J	F
R 687		RS1/16S470J	R 808		RS1/16S103J	
R 691		RS1/16S471J	R 810		RS1/16S0R0J	
R 692		RS1/16S471J	R 812		RS1/16S470J	



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

R 813 RS1/16S0R0J  
 R 814 RS1/16S0R0J  
 R 817 RS1/16S103J  
 R 819 RS1/8S181J

R 892 RS1/16S6800D  
 R 893 RS1/8S102J  
 R 894 RS1/16S471J  
 R 895 RS1/8S102J

R 820 RS1/8S181J  
 R 821 RS1/16S103J  
 R 824 RS1/16S0R0J  
 R 825 RS1/10S360J  
 R 826 RS1/10S360J

R 896 RS1/16S103J  
 R 901 RS1/16S224J  
 R 902 RS1/16S473J  
 R 903 RS1/16S223J  
 R 904 RS1/16S223J

R 827 RS1/16S103J  
 R 829 RS1/16S475J  
 R 830 RS1/16S101J  
 R 831 RS1/16S1600D  
 R 832 RS1/16S5601D

R 905 RS1/10S472J  
 R 906 RS1/16S223J  
 R 911 RS1/16S474J  
 R 912 RS1/16S472J  
 R 913 RS1/16S102J

R 833 RS1/16S1001D  
 R 834 RS1/16S331J  
 R 835 RS1/16S154J  
 R 836 RS1/16S3300D  
 R 837 RS1/16S101J

R 914 RS1/16S473J  
 R 915 RS1/16S473J  
 R 916 RS1/16S473J  
 R 917 RS1/16S0R0J  
 R 918 RS1/16S471J

R 838 RS1/16S3001D  
 R 839 RS1/16S1001D  
 R 840 RS1/16S102J  
 R 841 RS1/16S104J  
 R 842 RS1/16S6800D

R 919 RS1/16S475J  
 R 920 RS1/16S101J  
 R 921 RS1/16S103J  
 R 922 RS1/16S0R0J  
 R 925 RS1/16S102J

R 843 RS1/16S5601D  
 R 844 RS1/16S1001D  
 R 845 RS1/16S101J  
 R 846 RS1/16S102J  
 R 847 RS1/16S5600D

R 926 RS1/16S103J  
 R 927 RS1/16S471J  
 R 928 RS1/16S103J  
 R 929 RS1/10S103J  
 R 936 RS1/16S820J

R 848 RS1/16S2401D  
 R 849 RS1/16S101J  
 R 850 RS1/16S1601D  
 R 851 RS1/16S152J  
 R 852 RS1/16S1200D

R 937 RS1/16S820J  
 R 938 RS1/16S561J  
 R 939 RS1/16S0R0J  
 R 940 RS1/16S0R0J  
 R 941 RS1/16S0R0J

R 853 RS1/16S1001D  
 R 854 RS1/16S104J  
 R 855 RS1/16S101J  
 R 856 RS1/16S1001D  
 R 857 RS1/16S152J

R 942 RS1/16S0R0J  
 R 943 RS1/16S0R0J  
 R 944 RS1/16S104J  
 R 945 RS1/16S104J  
 R 946 RS1/16S4701D

R 858 RS1/16S100J  
 R 859 RS1/16S184J  
 R 861 RS1/10S100J  
 R 865 RS1/16S100J  
 R 866 RS1/16S104J

R 952 RS1/16S473J  
 R 954 RS1/16S103J  
 R 962 RS1/16S103J  
 R 971 RS1/16S824J  
 R 972 RS1/16S102J

R 867 RS1/16S473J  
 R 868 RS1/16S100J  
 R 869 RS1/16S104J  
 R 870 RS1/16S473J  
 R 873 RS1/10S150J

R 973 RS1/16S472J  
 R 974 RS1/8S271J  
 R 975 RS1/8S751J  
 R 977 RS1/16S103J  
 R 978 RS1/16S103J

R 874 RS1/16S224J  
 R 875 RS1/16S224J  
 R 876 RS1/10S150J  
 R 877 RS1/10S150J  
 R 878 RS1/16S224J

R 979 RS1/10S0R0J  
 R 981 RS1/10S0R0J  
 R 982 RS1/10S0R0J  
 R 983 RS1/10S102J  
 R 2403 RS1/16S102J

R 879 RS1/16S224J  
 R 880 RS1/10S150J  
 R 884 RS1/4S561J  
 R 885 RS1/4S561J  
 R 886 RS1/16S103J

R 2404 RS1/16S473J  
 R 2407 RS1/16SS473J  
 R 2409 RS1/16S473J  
 R 2410 RS1/16SS473J  
 R 2411 RS1/16S473J

R 891 RS1/16S1101D

R 2416 RS1/16SS473J



<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>	
R 2417	RS1/16S104J	R 2503	RS1/16S101J	
R 2418	RS1/16S102J	R 2551	RS1/16SS101J	
R 2419	RS1/16SS473J	R 2552	RS1/16SS621J	A
R 2420	RS1/16S473J	R 2553	RS1/16SS473J	
R 2421	RS1/16S473J	R 2555	RS1/16SS361J	
R 2422	RS1/16S473J	R 2556	RS1/16S473J	
R 2423	RS1/16SS473J	R 2557	RS1/16S473J	
R 2424	RS1/16S473J	R 2558	RS1/16SS473J	
R 2425	RS1/16S473J	R 2566	RS1/16SS101J	
R 2426	RS1/16SS473J	R 2567	RS1/16SS101J	
R 2428	RS1/16S0R0J	R 2568	RS1/16SS101J	
R 2432	RS1/16S473J	R 2569	RS1/16S102J	
R 2433	RS1/16S473J	R 2570	RS1/16S0R0J	
R 2438	RS1/16S181J	R 2571	RS1/16S224J	B
R 2439	RS1/16S331J	R 2572	RS1/16S224J	
R 2440	RS1/16S181J	R 2602	RS1/8S0R0J	
R 2441	RS1/16S223J	R 2603	RS1/16S102J	
R 2444	RS1/16S223J	R 2604	RS1/16S102J	
R 2445	RS1/16S102J	R 2606	RS1/16S683J	
R 2446	RS1/16S102J	R 2608	RS1/16S153J	
R 2447	RS1/16S104J	R 2610	RS1/16S0R0J	
R 2448	RS1/16S473J	R 2612	RS1/16S752J	
R 2449	RS1/16S101J	R 2613	RS1/16S683J	
R 2450	RS1/16S473J	R 2615	RS1/16S394J	
R 2451	RS1/16S152J	R 2616	RS1/16S101J	C
R 2452	RS1/16S101J	R 2617	RS1/16S105J	
R 2459	RS1/16S0R0J	R 2618	RS1/16S102J	
R 2460	RS1/16S104J	R 2619	RS1/16S472J	
R 2461	RS1/16S1202D	R 2620	RS1/16S152J	
R 2462	RS1/16S1003D	R 2621	RS1/16S472J	
R 2463	RS1/16S0R0J	R 2622	RS1/16S472J	
R 2464	RS1/16S0R0J	R 2623	RS1/16S472J	
R 2465	RS1/16SS0R0J	R 2624	RS1/16S333J	
R 2470	RS1/16S0R0J	R 2625	RS1/16S683J	
R 2471	RS1/16S0R0J	R 2626	RS1/16S154J	D
R 2472	RS1/16S331J	R 2627	RS1/16S101J	
R 2473	RS1/16S331J	R 2628	RS1/16S103J	
R 2474	RS1/16S101J	R 2629	RS1/16S103J	
R 2475	RS1/16S104J	R 2630	RS1/16S473J	
R 2476	RS1/16S104J	R 2631	RS1/16S473J	
R 2478	RS1/16S472J	R 2701	RS1/16S222J	
R 2479	RS1/16S472J	R 2702	RS1/16S222J	
R 2480	RS1/16S472J	R 2706	RS1/16S222J	
R 2481	RS1/16S472J	R 2707	RS1/16S102J	
R 2482	RS1/16S472J	R 2708	RS1/16S102J	
R 2483	RS1/16S472J	R 2710	RS1/16S102J	E
R 2484	RS1/16S472J	R 2711	RS1/16S102J	
R 2485	RS1/16S472J	R 2712	RS1/16S103J	
R 2486	RS1/16S472J	R 2715	RS1/16S223J	
R 2487	RS1/16S472J	R 2716	RS1/16S223J	
R 2488	RS1/16S471J	R 2717	RS1/16S472J	
R 2489	RS1/16S471J	R 2718	RS1/16S103J	
R 2492	RS1/16S223J	R 2719	RS1/16S223J	
R 2493	RS1/16S473J	R 2720	RS1/16S472J	
R 2496	RS1/16S103J	R 2721	RS1/16S223J	
R 2497	RS1/4S102J	R 2722	RS1/16S472J	
R 2499	RS1/16S103J	R 2723 (X1/EW)	RS1/16S223J	F
R 2500	RS1/16S103J	R 2724 (X1/EW)	RS1/16S472J	
R 2501	RS1/16S221J	R 2725 (X1/EW)	RS1/16S103J	
R 2502	RS1/16S102J	R 2726 (X1/EW)	RS1/16S223J	



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

R 2727 (N1/UC)  
R 2729 (X1/EW)  
R 2730  
R 2731

RS1/16S0R0J  
RS1/16S472J  
RS1/16S471J  
RS1/16S471J

C 44  
C 47  
C 49  
C 51  
C 54

CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB224K10  
CCSRCH121J50

R 2732  
R 2733  
R 7021  
R 7037  
R 7038

RS1/16S332J  
RS1/16S332J  
RS1/16S820J  
RS1/16S101J  
RS1/16S101J

C 55  
C 57  
C 60  
C 63  
C 64

CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16

R 7039  
R 7042  
R 7043  
R 7044  
R 7045

RS1/16S750J  
RS1/16S4701D  
RS1/16S4701D  
RS1/16S101J  
RS1/16S102J

C 66  
C 67  
C 68  
C 69  
C 70

10μF  
22μF  
22μF  
22μF

CKSRYB104K16  
CCG1171  
CCG1178  
CCG1178  
CCG1178

R 7046  
R 7047  
R 7048  
R 7049

RS1/16S4701D  
RS1/16S4701D  
RS1/16S563J  
RS1/16S473J

C 71  
C 72  
C 73  
C 74  
C 75

CKSRYF103Z50  
CKSRYF103Z50  
CKSRYF104Z25  
CKSRYF104Z25  
CKSRYF104Z25

**CAPACITORS**

C 1  
C 2  
C 3  
C 4  
C 5

CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16

C 76  
C 77  
C 78  
C 79  
C 80

CKSRYB103K50  
CKSRYB103K50  
CKSRYB103K50  
CKSRYB103K50  
CKSRYB103K50

C 6  
C 7  
C 8  
C 9  
C 10

CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16

C 81  
C 82  
C 96  
C 97  
C 98

CKSRYB224K10  
CKSRYB103K50  
CKSRYB224K10  
CKSRYB224K10  
CKSRYB224K10

C 11  
C 12 10μF  
C 13  
C 14  
C 15

CKSRYB104K16  
CCG1171  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16

C 101  
C 102  
C 103  
C 104  
C 105

CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16

C 16  
C 17  
C 18  
C 19  
C 20

CKSRYB104K16  
CKSRYB104K16  
CCSRCH100D50  
CCSRCH100D50  
CKSRYB104K16

C 106  
C 107  
C 108  
C 109  
C 110

10μF

CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CCG1171

C 21  
C 22  
C 23  
C 24  
C 25

CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16

C 111  
C 112  
C 113  
C 114  
C 115

10μF

CKSRYB104K16  
CKSRYF224Z16  
CCG1171  
CKSRYB104K16  
CKSRYF224Z16

C 26  
C 27 10μF  
C 28  
C 29  
C 30

CKSRYB104K16  
CCG1171  
CKSRYB104K16  
CKSRYB104K16  
CKSRYF104Z25

C 116  
C 117  
C 118  
C 119  
C 120

10μF

CKSRYF104Z25  
CCG1171  
CKSRYB104K16  
CKSRYF104Z25  
CKSRYF104Z25

C 31  
C 32  
C 33  
C 35  
C 36

CCSRCH9R0D50  
CCSRCH9R0D50  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16

C 121  
C 122  
C 123  
C 124  
C 125

CKSRYF104Z25  
CKSRYF104Z25  
CKSRYF103Z50  
CCSRCH101J50  
CKSRYF104Z25

C 38 10μF  
C 39  
C 40  
C 41  
C 42

CCG1171  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16

C 126  
C 201  
C 202  
C 203  
C 204

CKSRYF104Z25  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16



Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.	
C 205		CKSRYB104K16	C 331		CKSRYB104K16	
C 206		CKSRYB104K16	C 332		CKSRYB104K16	A
C 207		CKSRYB104K16	C 339	10μF	CCG1171	
C 208		CKSRYB104K16	C 341		CCSRCH101J50	
C 209		CKSRYB104K16	C 342		CKSRYF104Z25	
C 211		CKSRYB104K16	C 344		CKSRYF103Z50	
C 213		CKSRYB104K16	C 345		CKSRYF104Z25	
C 214		CKSRYB104K16	C 346		CKSRYF103Z50	
C 215		CKSRYB104K16	C 347		CKSRYF103Z50	
C 216		CKSRYB104K16	C 348		CKSRYF104Z25	
C 217		CKSRYB104K16	C 349		CKSRYF103Z50	
C 220	10μF	CCG1171	C 350		CKSRYB104K16	
C 221		CKSRYB104K16	C 601		CKSSYB104K10	B
C 222		CKSRYB104K16	C 602		CKSSYB104K10	
C 223		CKSRYB224K10	C 603		CKSSYB104K10	
C 224		CKSRYB104K16	C 604		CKSSYB104K10	
C 225		CKSRYB104K16	C 605		CKSSYB104K10	
C 227		CKSRYB104K16	C 606		CKSRYB104K16	
C 228		CKSRYB104K16	C 607		CKSSYB104K10	
C 230		CCSRCH150J50	C 608		CKSSYB104K10	
C 231		CCSRCH120J50	C 609		CKSRYB104K16	
C 232		CKSRYB104K16	C 610		CKSSYB104K10	
C 233		CKSRYB104K16	C 611		CKSSYB104K10	
C 234		CKSRYB104K16	C 612		CKSSYB104K10	C
C 235		CKSRYB104K16	C 617		CKSQYB225K10	
C 237		CKSRYB104K16	C 620		CKSRYF104Z25	
C 238		CKSRYB104K16	C 623		CKSSYB104K10	
C 239		CKSRYB104K16	C 624		CKSRYF104Z25	
C 240		CKSRYB104K16	C 626		CKSSYB103K16	
C 241		CKSRYB104K16	C 630		CCSRCH101J50	
C 242		CKSRYB104K16	C 636		CKSRYF104Z25	
C 243		CKSRYB104K16	C 637		CKSRYF104Z25	
C 244		CKSRYB104K16	C 638		CKSRYF104Z25	
C 245		CKSRYB104K16	C 639		CKSRYF104Z25	
C 246		CKSRYB104K16	C 640		CKSRYF104Z25	D
C 247		CKSRYB104K16	C 642		CKSRYF104Z25	
C 248		CKSRYB104K16	C 643		CKSRYF104Z25	
C 249	10μF	CCG1171	C 644		CKSRYF104Z25	
C 250	10μF	CCG1171	C 645	10μF	CCG1173	
C 251	10μF	CCG1171	C 647	10μF	CCG1173	
C 252	10μF	CCG1171	C 648		CKSRYF104Z25	
C 253		CKSRYF104Z25	C 670		CKSSYB104K10	
C 255		CKSRYB103K50	C 671		CKSSYB104K10	
C 256		CKSRYB103K50	C 672		CKSSYB104K10	
C 257		CKSRYB103K50	C 673		CKSSYB104K10	
C 258		CKSRYB103K50	C 675		CKSSYB104K10	E
C 259		CKSRYB103K50	C 691		CKSRYB102K50	
C 260		CKSRYB103K50	C 692		CKSRYB104K16	
C 261		CKSRYB103K50	C 693		CKSQYB105K16	
C 262		CKSRYB103K50	C 694		CKSQYB105K16	
C 301		CKSRYF104Z25	C 695		CKSQYB105K16	
C 302		CKSRYB334K10	C 696		CKSRYB102K50	
C 303		CKSRYF104Z25	C 697		CKSQYB105K16	
C 306		CKSRYF104Z25	C 698		CKSQYB105K16	
C 323	10μF	CCG1171	C 699		CKSRYB102K50	
C 324		CKSRYB104K16	C 700		CKSRYB102K50	F
C 327	10μF	CCG1171	C 701		CKSRYB102K50	
C 328		CKSRYB104K16	C 702		CKSRYB102K50	
C 329	10μF	CCG1171	C 706		CKSRYB104K25	
C 330	10μF	CCG1171	C 732		CKSRYB102K50	



Circuit Symbol and No.Part No.Circuit Symbol and No.Part No.

A	C 733		CKSRYB102K50	C 803		CKSQYB225K10
	C 734		CKSRYB102K50	C 804		CEVW101M16
	C 735		CKSRYB102K50	C 805		CKSRYB103K50
	C 736		CKSRYF104Z25	C 806		CKSRYB103K50
	C 737		CKSRYF104Z25	C 807		CEVW470M16
B	C 738		CKSRYF104Z25	C 808		CKSRYF334Z16
	C 739		CKSRYF104Z25	C 809		CKSRYB103K50
	C 740		CKSRYF104Z25	C 810		CEVW101M16
	C 741		CKSRYF104Z25	C 811		CKSRYF104Z25
	C 748		CKSSYB103K16	C 812		CKSRYB103K50
C	C 749		CKSQYB225K10	C 813		CEVW101M16
	C 751		CKSRYB104K16	C 814		CEVW101M16
	C 752		CKSRYB104K16	C 815		CKSRYB103K50
	C 753		CKSRYB104K16	C 816		CEVW101M16
	C 754		CCSRCH5R0C50	C 817		CKSRYB473K50
D	C 755		CCSRCH470J50	C 818		CKSRYB103K50
	C 756		CKSRYF104Z25	C 819		CCSRCH101J50
	C 757		CEVQ470M16	C 820		CKSRYB224K16
	C 758		CKSRYB105K6R3	C 821		CKSRYB473K50
	C 761		CCSRCH220J50	C 822		CCSRCH101J50
E	C 762		CEVW100M16	C 823		CKSRYB104K16
	C 763		CKSRYF104Z25	C 824		CKSRYB223K50
	C 764		CEVW221M4	C 825		CCSRCH101J50
	C 765		CEVW221M4	C 826		CKSRYB104K16
	C 766		CEVW221M4	C 827		CKSRYB153K50
F	C 767	330μF/6.3V	CCH1410	C 828		CCSRCH101J50
	C 768		CKSRYB105K6R3	C 829		CKSRYB104K16
	C 769		CEVQ470M16	C 830		CKSRYB153K50
	C 770		CKSRYB104K16	C 831		CCSRCH101J50
	C 771		CKSRYB104K16	C 832		CKSRYB104K25
G	C 772		CEVW101M16	C 833		CCSRCH330J50
	C 773		CKSQYB225K10	C 834		CKSRYB105K10
	C 774		CKSQYB225K10	C 835	4.7μF	CCG1111
	C 775		CKSRYB103K50	C 836		CKSRYF104Z25
	C 776		CKSQYB225K10	C 837		CKSYB475K16
H	C 777		CEVW101M16	C 838		CKSRYF474Z16
	C 778		CEVW220M6R3	C 839	220μF/10V	CCH1409
	C 779		CKSYF106Z10	C 840	10μF	CCG1173
	C 780		CKSQYB225K10	C 841	4.7μF	CCG1111
	C 781		CKSQYB225K10	C 842		CKSRYB103K50
I	C 782		CKSRYB104K16	C 843		CCSRCH470J50
	C 783		CEVW101M16	C 844		CKSRYB105K10
	C 784		CKSRYB103K50	C 845		CKSRYB103K50
	C 785		CKSQYB225K10	C 846	4.7μF	CCG1111
	C 786		CEVW101M16	C 847		CKSRYB103K50
J	C 787		CEVW220M6R3	C 848		CCSRCH470J50
	C 788		CKSRYB104K16	C 849		CKSRYB105K10
	C 790		CKSRYB104K16	C 850		CKSRYB103K50
	C 791		CKSYF106Z10	C 851	10μF	CCG1173
	C 792		CKSRYB104K16	C 852	4.7μF	CCG1111
K	C 793		CKSYF106Z10	C 853		CKSRYF474Z16
	C 794		CKSYF106Z10	C 854		CKSRYF104Z25
	C 795		CKSQYB225K10	C 855		CKSRYF104Z25
	C 796		CKSQYB225K10	C 856		CKSRYF474Z16
	C 797	10μF	CCG1171	C 857		CKSYB475K16
L	C 798		CKSRYB104K16	C 858		CKSRYF474Z16
	C 799		CKSRYB104K16	C 859		CKSRYF104Z25
	C 800		CKSRYB104K16	C 860		CKSRYF104Z25
	C 801		CKSRYB103K50	C 861		CKSRYF474Z16
	C 802		CEVW101M16	C 862		CKSYB475K16



<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>
C 863		CKSRYF104Z25	C 964		CKSRYB105K10
C 865	10μF	CCG1173	C 971		CKSRYB222K50
C 868	4.7μF	CCG1111	C 972		CKSRYB474K10
C 869	330μF/6.3V	CCH1366	C 973		CKSQYB105K16
C 870	4.7μF	CCG1111	C 974		CKSQYB103K50
C 871	220μF/10V	CCH1409	C 975		CEVQ470M16
C 872	10μF	CCG1173	C 981		CKSRYB103K50
C 873	10μF	CCG1173	C 982		CKSRYF104Z25
C 875	4.7μF	CCG1111	C 983		CKSRYB103K50
C 876	330μF/6.3V	CCH1366	C 984		CKSRYF104Z25
C 877	4.7μF	CCG1111	C 985		CKSRYB103K50
C 878	330μF/6.3V	CCH1366	C 986		CKSRYF104Z25
C 879	220μF/25V	CCH1356	C 987		CKSRYB103K50
C 880		CKSQYB104K16	C 988		CKSRYF104Z25
C 881	2200μF/16V	CCH1405	C 989		CKSRYB103K50
C 882		CEVW101M16	C 990		CKSRYF104Z25
C 883		CKSRYB103K50	C 2019		CKSRYB104K16
C 884		CEVW101M16	C 2404		CKSRYB104K16
C 885		CKSRYF104Z25	C 2407		CKSRYB104K16
C 887		CKSRYF104Z25	C 2412		CEVW101M16
C 888		CKSRYB103K50	C 2413		CKSRYB105K10
C 889		CKSRYB103K50	C 2414		CKSRYB105K10
C 890		CKSRYF104Z25	C 2418		CKSRYB105K6R3
C 891		CKSRYF104Z25	C 2419		CCSRCH330J50
C 892		CKSRYB103K50	C 2420		CCSRCH330J50
C 893		CEVW101M16	C 2421		CKSRYB103K50
C 894		CKSRYB103K50	C 2422		CCSRCH151J50
C 895		CKSRYB104K16	C 2423		CCSRCH151J50
C 896		CKSRYB103K50	C 2424		CCSRCH221J50
C 897		CEVW101M16	C 2425		CCSRCH330J50
C 898		CKSQYB104K16	C 2426		CCSRCH330J50
C 899	220μF/25V	CCH1356	C 2431		CCSRCH471J50
C 900		CKSQYB104K16	C 2432		CKSRYF104Z25
C 901		CKSRYB103K50	C 2433		CEVQ220M16
C 902		CEVW101M16	C 2434		CKSRYB105K6R3
C 903	10000μF/16V	CCH1412	C 2435		CKSRYB105K6R3
C 905		CEVW101M16	C 2436		CKSRYB105K6R3
C 906		CKSRYB104K16	C 2437		CKSRYB102K50
C 907		CKSRYB473K50	C 2441		CKSRYB105K6R3
C 908		CKSRYF103Z50	C 2442		CKSRYB105K6R3
C 909		CKSRYF104Z25	C 2443		CKSRYB105K6R3
C 910		CKSRYB104K25	C 2444		CKSRYB105K6R3
C 914		CKSRYF104Z25	C 2445	47μF/16V	CCH1413
C 916		CKSQYB104K25	C 2446		CKSRYB105K6R3
C 918		CKSRYB103K50	C 2447		CKSRYB104K16
C 919		CKSRYB104K25	C 2448		CKSRYB105K6R3
C 920		CKSRYF104Z25	C 2449		CKSRYB105K6R3
C 950	4.7μF	CCG1111	C 2450		CEVQ220M16
C 951	4.7μF	CCG1111	C 2451		CKSRYF104Z25
C 953	4.7μF	CCG1111	C 2452		CKSRYB105K6R3
C 954	10μF	CCG1173	C 2453		CKSYB475K16
C 955	4.7μF	CCG1111	C 2456		CKSYB475K16
C 956	10μF	CCG1173	C 2457		CKSYB475K16
C 957	10μF	CCG1173	C 2458		CKSYB475K16
C 958	4.7μF	CCG1111	C 2459		CKSYB475K16
C 959	10μF	CCG1173	C 2460		CKSYB475K16
C 960	4.7μF	CCG1111	C 2461		CKSRYB332K50
C 961		CKSRYF104Z25	C 2462		CKSYB475K16
C 962		CKSRYB103K50	C 2463		CKSYB475K16
C 963		CKSRYB104K25	C 2464		CKSRYB474K10



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

A C 2465 CKSRYB104K16  
C 2466 CKSRYB104K16  
C 2467 CKSRYB104K16  
C 2468 CCSRCH100D50  
C 2469 CKSRYB104K16

C 2470 CCSRCH100D50  
C 2471 CKSRYB104K16  
C 2472 CCSRCH100D50  
C 2473 CKSRYB104K16  
C 2474 CCSRCH100D50

B C 2475 CCSRCH100D50  
C 2476 CCSRCH100D50  
C 2477 CKSRYB105K6R3  
C 2478 CKSRYB105K6R3  
C 2479 CEVW101M16

C 2480 10μF/16V CCH1442  
C 2481 CEVW101M16  
C 2482 CKSRYB222K50  
C 2483 10μF CCG1138  
C 2484 CKSRYB105K6R3

C 2485 10μF CCG1138  
C 2486 CKSRYB105K6R3  
C 2487 CCSRCH101J50  
C 2488 CCSRCH101J50  
C 2489 CKSRYB104K16

C 2490 CCSRCH101J50  
C 2491 CCSRCH101J50  
C 2492 CKSRYB104K16  
C 2493 10μF/16V CCH1442  
C 2494 CKSRYB105K10

C 2495 CKSRYB105K10  
C 2496 CKSRYB105K10  
C 2497 CKSRYB105K10  
C 2498 CKSRYB105K10  
D C 2499 CKSRYB105K10

C 2500 CKSRYB105K10  
C 2501 CKSRYB105K10  
C 2503 2200μF/16V CCH1405  
C 2504 10μF CCG1138  
C 2505 CKSRYB104K25

C 2506 10μF/16V CCH1442  
C 2507 CKSYB475K16  
C 2508 CKSYB475K16  
C 2509 33μF/25V CCH1444  
C 2510 CKSRYB473K50

E C 2519 CKSRYF104Z25  
C 2552 CCSRCH150J50  
C 2553 CKSRYB104K16  
C 2554 CKSQYB225K10  
C 2555 CKSSYB104K10

C 2556 CKSSYB104K10  
C 2557 CKSSYB103K16  
C 2558 CKSRYB103K50  
C 2603 CEVQ220M16  
C 2604 CKSRYB473K50

F C 2605 CKSRYB473K50  
C 2606 CKSRYB333K50  
C 2607 CKSRYB105K6R3  
C 2608 CCSRCH471J50  
C 2609 CKSRYF104Z25

C 2610  
C 2611  
C 2612  
C 2613  
C 2614

C 2615  
C 2616  
C 2617  
C 2618  
C 2621

C 2637  
C 2704  
C 2705  
C 2706  
C 2707

C 2708  
C 2709  
C 2710 (X1/EW)  
C 2711  
C 2712

C 2713 (X1/EW)  
C 7007  
C 7014  
C 7015  
C 7017

C 7018  
C 7019  
C 7020  
C 7021  
C 7078

C 7092

CEVQ220M16  
CKSRYB105K6R3  
CKSRYB474K10  
CCSRCH471J50  
CCSRCH680J50

CKSRYB105K6R3  
CKSRYB105K6R3  
CKSRYB104K16  
CKSRYF104Z25  
CKSSYF104Z16

CKSQYB105K10  
CKSRYB104K16  
CKSRYB103K50  
CKSRYB104K16  
CKSRYF104Z25

CKSRYB104K16  
CKSRYB104K16  
CKSRYB104K16  
CKSRYF104Z25  
CKSRYB102K50

CKSRYB104K16  
CKSRYF104Z25  
CKSYB106K6R3  
CKSYB106K6R3  
CCSRCK1R0C50

CKSRYB105K10  
CKSYF106Z10  
CKSRYB104K16  
CCSRCH102J50  
CKSRYB104K16

CKSRYB104K16

**P**

**Unit Number: CWX2929(AVIC-X1/EW)**

**Unit Number: CWX2960(AVIC-N1/UC)**

**Unit Name: GPS Unit**

**MISCELLANEOUS**

IC 401	IC	UPC2749T
IC 402	IC	UPB1027GS
IC 441	IC	NJM2100V
IC 461	IC	ADC12H034CIMS
IC 501	IC	PD3390A
IC 502	IC(X1/EW)	PD6472A
	IC(N1/UC)	PD6473A
IC 503	IC	M5M5V216ATP-70HI
IC 504	IC	MAX6364PUT29
IC 532	IC(X1/EW)	LC72720YVS
Q 441	Transistor	2SB1132
D 401	Diode	1SV314
D 501	Diode	RB751V40
L 401	Inductor	CTF1549
L 402	Inductor	CTF1486
L 403	Inductor	CTF1486
L 404	Inductor	LCSA3N3R1608
L 405	Inductor	LCYB22NJ1608
L 406	Inductor	LCYB22NJ1608
L 407	Inductor	CTF1410



<u>Circuit Symbol and No.</u>			<u>Part No.</u>	<u>Circuit Symbol and No.</u>			<u>Part No.</u>
L 408	Inductor(X1/EW)		CTF1410	R 471			RAB4CQ104J
	Inductor(N1/UC)		CTF1556	R 477			RS1/16SS222J
L 409	Inductor		LCTB1R0K2125	R 478			RS1/16SS222J
L 410	Inductor		CTF1547	R 479			RS1/16SS222J
L 412	Inductor		CTF1547	R 480			RS1/16SS332J
				R 481			RS1/16SS332J
L 413	Inductor		CTF1547				
L 414	Inductor		CTF1547	R 482			RS1/16SS223J
L 415	Inductor		CTF1547	R 483			RS1/16SS473J
L 416	Inductor		CTF1547	R 501			RS1/16SS0R0J
L 417	Inductor		CTF1547	R 502			RS1/16SS102J
				R 503			RS1/16SS154J
L 418	Inductor		CTF1410				
L 441	Inductor		CTF1410	R 508	(X1/EW)		RS1/16SS472J
L 442	Inductor		CTF1410		(N1/UC)		RS1/16SS103J
L 461	Inductor		CTF1410	R 509			RS1/16SS473J
L 462	Inductor		CTF1410	R 510			RS1/16SS102J
				R 511			RS1/16SS103J
L 467	Inductor		CTF1547				
L 468	Inductor		CTF1547	R 512			RS1/16SS473J
L 469	Inductor		CTF1410	R 513			RS1/16SS103J
L 501	Inductor		CTF1410	R 514			RS1/16SS473J
L 502	Inductor		CTF1410	R 515			RS1/16SS473J
				R 517			RS1/16SS103J
L 503	Inductor		CTF1410				
L 504	Inductor		CTF1410	R 519			RS1/16SS473J
L 531	Inductor		CTF1410	R 521			RS1/16SS473J
X 401	TCXO 16.368MHz		CWX2381	R 532	(X1/EW)		RS1/16SS104J
X 501	Radiator 32.768kHz		CSS1319	R 533	(X1/EW)		RS1/16SS332J
					(N1/UC)		RS1/16SS103J
X 502	Radiator 20.00MHz		CSS1549				
X 532	Radiator 4.332MHz(X1/EW)		CSS1550	R 534			RS1/16SS103J
F 401	Filter		CTF1548	R 535			RS1/16SS103J
				R 536			RS1/16SS0R0J
				R 537	(X1/EW)		RS1/16S0R0J
				R 538	(X1/EW)		RS1/16SS0R0J
<b>RESISTORS</b>				<b>CAPACITORS</b>			
R 401			RS1/16SS472J				
R 402			RS1/16SS472J				
R 403			RS1/16SS122J				
R 404			RS1/16SS622J				
R 405			RS1/16SS100J				
R 406			RS1/16S271J				
R 407			RS1/16S2R2J				
R 441			RN1/16SC10R0D				
R 442			RN1/16SE1501D				
R 443			RN1/16SE2402D				
R 444			RN1/16SE3302D				
R 445			RN1/16SE4702D				
R 446			RN1/16SE4702D				
R 447			RS1/16S432J				
R 448			RN1/16SE1002D				
R 449			RN1/16SE2202D				
R 450			RN1/16SE3302D				
R 451			RS1/16S103J				
R 452			RS1/16SS102J				
R 454			RS1/16SS102J				
R 460			RS1/16S0R0J				
R 461			RS1/16SS102J				
R 462			RS1/16SS102J				
R 463			RAB4CQ102J				
R 464			RAB4CQ333J				
R 465			RS1/16SS102J				
R 468	(X1/EW)		RS1/16SS471J				
R 469	(X1/EW)		RAB4CQ471J				
R 470			RAB4CQ471J				



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

C 427 CKSSYB104K10  
 C 428 CKSSYB103K16  
 C 429 CCSRCH301J50  
 C 430 CCSSCH120J50

C 431 CCSRCH301J50  
 C 432 CKSSYB103K16  
 C 433 CCSRCH101J50  
 C 434 CKSSYB102K50  
 C 435 CKSSYB103K16

C 436 CKSSYB104K10  
 C 441 CKSRYB104K16  
 C 442 CCSRCH101J50  
 C 443 CKSRYB104K16  
 C 444 CKSSYB103K16

C 445 CKSSYB104K10  
 C 461 CCH1408  
 C 462 CKSRYB104K16  
 C 463 CKSRYB104K16  
 C 464 CKSSYB103K16

C 465 CKSSYB103K16  
 C 466 CKSSYB103K16  
 C 467 CKSSYB103K16  
 C 468 CKSSYB104K10  
 C 469 CSZS100M10

C 470 CKSSYB104K10  
 C 471 CCSSCH101J50  
 C 501 CKSSYB104K10  
 C 502 CCSRCH150J50  
 C 503 CCSRCH150J50

C 504 CKSSYB104K10  
 C 506 CKSSYB104K10  
 C 507 CKSSYB104K10  
 C 508 CKSSYB104K10  
 C 509 CKSSYB104K10

C 511 CKSSYB104K10  
 C 512 CKSSYB104K10  
 C 514 CSZS100M6R3  
 C 515 CKSSYB104K10  
 C 516 CKSSYB104K10

C 517 CKSSYB104K10  
 C 518 CKSSYB104K10  
 C 535 CSZS100M6R3  
 C 539 CCSRCH100D50  
 C 540 CCSRCH100D50

C 541 CCSRCH561J50  
 C 542 CKSSYB104K10  
 C 543 CSZS100M6R3  
 C 544 CCSRCH331J50  
 C 545 CKSSYB104K10

**Mother Tuner Unit****Consists of****Relay PCB****Mother PCB****Connector PCB****JKL****Unit Number:CWM9136(AVIC-X1/EW)****Unit Name:Mother Tuner Unit****MISCELLANEOUS**

IC 1001	IC	NJM2137V
IC 1002	IC	TA2050F
IC 1101	IC	HA12240FP
IC 1102	IC	TA2050F
IC 1201	IC	NJM2137V
IC 1301	IC	TA2050F
IC 1302	IC	NJM2137V
IC 1352	IC	NJM2137V
IC 1401	IC	NJM2391DL1-33
IC 1402	IC	NJM4558E
IC 1501	IC	CXA2069Q
IC 1551	IC	NJM2561F1
IC 1552	IC	NJM2561F1
IC 1601	IC	TC7SH04FU
IC 1603	IC	PE5411A
IC 1604	IC	TC7SH08FU
IC 1605	IC	TC7SH08FU
IC 1607	IC	TC7SH08FU
IC 1608	IC	TC7SH04FU
IC 1821	IC	NJM2904M
IC 1871	IC	S-812C33AMC-C2N
IC 1872	IC	S-L2980A50MC-C7J
IC 1901	IC	NJM2391DL1-33
IC 1902	IC	M5237ML
Q 1101	Transistor	DTC124EU
Q 1102	Transistor	2SA1576
Q 1201	Transistor	2SA1037K
Q 1202	Transistor	2SC2412K
Q 1401	Transistor	2SC3357
Q 1402	Transistor	2SC3127
Q 1403	Transistor	DTC124EU
Q 1404	Transistor	DTC124EU
Q 1405	Transistor	DTC124EU
Q 1406	Transistor	DTC124EU
Q 1551	Transistor	2SA1576
Q 1552	Transistor	2SA1576
Q 1555	Transistor	2SC2412K
Q 1556	Transistor	2SC2412K
Q 1557	Transistor	2SC2412K
Q 1558	Transistor	2SC2412K
Q 1559	Transistor	FMG12
Q 1581	Transistor	2SA1037K
Q 1582	Transistor	2SC4081
Q 1583	Transistor	2SC4081
Q 1601	Transistor	2SC2412K
Q 1607	Transistor	2SC4081
Q 1801	Transistor	2SC3545
Q 1802	Transistor	DTC144EK
Q 1803	Transistor	DTC144EK
Q 1821	Transistor	DTC114EU
Q 1822	Transistor	DTC114WK
Q 1871	Transistor	DTC114EU
Q 1872	Transistor	2SA1037K
Q 1881	Transistor	DTC114EU
Q 1901	Transistor	2SA1036K
Q 1902	Transistor	2SA1036K
Q 1903	Transistor	DTC114EK



<u>Circuit Symbol and No.</u>			<u>Part No.</u>	<u>Circuit Symbol and No.</u>			<u>Part No.</u>
Q 1904	Transistor		DTC114EK	D 1552	Diode		MA153
Q 1905	Transistor		2SB1260	D 1553	Diode		DAP202U
Q 1906	Transistor		DTC114EK	D 1580	Diode		MA111
Q 1907	Transistor		2SB1629	D 1581	Diode		DAN202U
Q 1908	Transistor		2SD2396	D 1582	Diode		UDZS8R2(B)
Q 1909	Transistor		2SD2396	D 1602	Diode		DAN202U
Q 1951	Transistor		2SD2098	D 1801	Diode		HZU3R3(B1)
Q 1952	Transistor		2SD2098	D 1821	Diode		S1G-6904G2P
Q 2801	Transistor		2SC4081	D 1822	Diode		UDZS18(B)
Q 2831	Transistor		DTC323TU	D 1823	Diode		UDZS18(B)
Q 2832	Transistor		DTC323TU	D 1824	Diode		1SS355
Q 2833	Transistor		DTC323TU	D 1871	Diode		UDZS5R6(B)
Q 2844	Transistor		DTC323TU	D 1881	Diode		UDZS18(B)
Q 2845	Transistor		DTC323TU	D 1882	Diode		1SS355
Q 2846	Transistor		DTC323TU	D 1883	Diode		UDZS6R8(B)
Q 2886	Transistor		2SC4081	D 1884	Diode		RB500V-40
D 1001	Diode		UDZS6R8(B)	D 1902	Diode		HZU9R1(B3)
D 1002	Diode		UDZS6R8(B)	D 1903	Diode		UDZS5R6(B)
D 1003	Diode		UDZS6R8(B)	D 1950	Diode		UDZS13(B)
D 1004	Diode		UDZS6R8(B)	D 1951	Diode		UDZS5R6(B)
D 1005	Diode		UDZS6R8(B)	D 2801	Diode		UDZS6R8(B)
D 1006	Diode		UDZS6R8(B)	D 2802	Diode		UDZS6R8(B)
D 1007	Diode		UDZS6R8(B)	D 2811	Diode		UDZS10(B)
D 1008	Diode		UDZS6R8(B)	D 2812	Diode		UDZS10(B)
D 1009	Diode		UDZS6R8(B)	D 2813	Diode		UDZS5R6(B)
D 1010	Diode		UDZS6R8(B)	D 2814	Diode		UDZS5R6(B)
D 1011	Diode		UDZS6R8(B)	D 2886	Diode		S1G-6904G2P
D 1012	Diode		UMZ6R8N	D 2887	Diode		S1G-6904G2P
D 1013	Diode		MA153	ZNR1401	Surge Protector		RCCA-201Q31UA-PI
D 1014	Diode		UMZ6R8N	L 1001	Inductor		CTF1334
D 1015	Diode		UMZ6R8N	L 1002	Inductor		CTF1334
D 1016	Diode		UDZS6R8(B)	L 1003	Inductor		CTF1334
D 1017	Diode		UDZS6R8(B)	L 1004	Inductor		CTF1334
D 1018	Diode		UDZS6R8(B)	L 1005	Inductor		CTF1306
D 1019	Diode		UMZ6R8N	L 1006	Inductor		CTF1306
D 1020	Diode		UMZ6R8N	L 1007	Inductor		CTF1306
D 1021	Diode		UMZ6R8N	L 1008	Inductor		CTF1306
D 1022	Diode		UMZ6R8N	L 1009	Inductor		CTF1306
D 1023	Diode		UDZS6R8(B)	L 1010	Inductor		CTF1306
D 1101	Diode		UMZ6R8N	L 1011	Inductor		CTF1306
D 1102	Diode		UMZ6R8N	L 1012	Inductor		CTF1306
D 1103	Diode		DAN202U	L 1013	Inductor		CTF1334
D 1201	Diode		1SS355	L 1014	Inductor		CTF1334
D 1202	Diode		1SS355	L 1015	Inductor		CTF1334
D 1203	Diode		HZU12(B2)	L 1016	Inductor		CTF1382
D 1204	Diode		HZU12(B2)	L 1017	Inductor		CTF1334
D 1205	Diode		HZU12(B2)	L 1018	Inductor		CTF1382
D 1206	Diode		HZU12(B2)	L 1019	Inductor		CTF1382
D 1207	Diode		UMZ6R8N	L 1020	Inductor		CTF1334
D 1208	Diode		UMZ6R8N	L 1021	Inductor		CTF1334
D 1301	Diode		UMZ6R8N	L 1022	Inductor		CTF1334
D 1302	Diode		UMZ6R8N	L 1026	Inductor		CTF1399
D 1303	Diode		UMZ6R8N	L 1101	Inductor		LCTA2R2J2520
D 1304	Diode		UMZ6R8N	L 1102	Inductor		CTF1334
D 1353	Diode		UMZ6R8N	L 1103	Inductor		CTF1334
D 1354	Diode		UMZ6R8N	L 1104	Inductor		CTF1334
D 1401	Diode		1SR154-400	L 1105	Inductor		CTF1334
D 1402	Diode		1SR154-400	L 1201	Inductor		CTF1399
D 1403	Diode		1SR154-400	L 1301	Inductor		CTF1399
D 1551	Diode		MA153	L 1302	Inductor		CTF1334



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

L 1303 Inductor  
L 1304 Inductor  
L 1305 Inductor

CTF1334  
CTF1334  
CTF1334

L 2834 Inductor  
L 2835 Inductor  
L 2836 Inductor

CTF1306  
CTF1306  
CTF1306

L 1351 Inductor  
L 1401 Inductor  
L 1402 Inductor  
L 1403 Inductor  
L 1404 Inductor

CTF1399  
LCTA4R7J2520  
LCTAR12J2520  
LCTA1R0J2520  
LCTCR10K2125

L 2851 Inductor  
L 2852 Inductor  
L 2853 Inductor  
L 2854 Inductor  
L 2855 Inductor

CTF1334  
CTF1334  
CTF1334  
CTF1334  
CTF1334

L 1405 Inductor  
L 1406 Inductor  
L 1407 Coil  
L 1408 Inductor  
L 1409 Inductor

LCTA1R0J2520  
LCTA1R0J2520  
CTC1143  
LCTCR10K2125  
LCTCR18K2125

L 2856 Inductor  
L 2857 Inductor  
L 2859 Inductor  
L 2861 Inductor  
L 2862 Inductor

CTF1334  
CTF1334  
CTF1334  
CTF1334  
CTF1334

L 1410 Inductor  
L 1411 Coil  
L 1412 Inductor  
L 1413 Coil  
L 1501 Inductor

LCTA101J2520  
CTC1142  
LCTA101J2520  
CTC1139  
LCTA100J2520

L 2886 Inductor  
X 1601 Radiator 12.58MHz  
VR1551 Semi-fixed 10kΩ(B)  
FU1201 Fuse 4A  
FU1701 Fuse 4A

CTF1295  
CSS1601  
CCP1448  
CEK1260  
CEK1260

L 1551 Inductor  
L 1552 Inductor  
L 1553 Inductor  
L 1554 Inductor  
L 1555 Inductor

LCTA101J2520  
LCTA100J2520  
LCTA100J2520  
LCTA100J2520  
LCTA100J2520

FU1702 Fuse 4A  
FU1950 Fuse 2A  
FU2801 Fuse 5A  
GY1861 Sensor  
GY1865 Sensor

CEK1260  
CEK1257  
CEK1289  
CSX1042  
CSX1074

L 1601 Inductor  
L 1602 Inductor  
L 1603 Inductor  
L 1604 Inductor  
L 1766 Inductor

CTF1379  
CTF1379  
CTF1379  
CTF1379  
CTF1379

EF1001 EMI Filter  
EF1201 EMI Filter  
EF1301 EMI Filter  
EF1351 EMI Filter  
EF1701 EMI Filter

CCG1082  
CCG1067  
CCG1067  
CCG1067  
CCG1067

L 1801 Inductor  
L 1802 Inductor  
L 1803 Inductor  
L 1804 Inductor  
L 1821 Inductor

LCTCR22K2125  
LCTA1R0J2520  
LCTA2R2J2520  
LCTA1R0J2520  
CTF1306

EF1901 EMI Filter  
EF1902 EMI Filter  
EF1903 EMI Filter  
EF2801 EMI Filter  
Y 1401 FM/AM Tuner Unit

CCG1172  
CCG1172  
CCG1172  
CCG1067  
CWE1650

L 1841 Inductor  
L 1842 Inductor  
L 1843 Inductor  
L 1844 Inductor  
L 1845 Inductor

CTF1334  
CTF1334  
CTF1334  
CTF1334  
CTF1334

Y 1801 Tuner Unit  
GPS Unit

CWE1674  
CWX2929

**RESISTORS**

L 1846 Inductor  
L 1847 Inductor  
L 1848 Inductor  
L 1849 Inductor  
L 1850 Inductor

CTF1334  
CTF1393  
CTF1393  
CTF1393  
CTF1334

R 1001  
R 1004  
R 1005  
R 1006  
R 1007

RS1/16S750J  
RS1/16S472J  
RS1/16S472J  
RS1/16S512J  
RS1/16S102J

L 1851 Inductor  
L 1852 Inductor  
L 1853 Inductor  
L 1861 Inductor  
L 1862 Inductor

CTF1334  
CTF1306  
CTF1306  
CTF1334  
CTF1334

R 1008  
R 1009  
R 1010  
R 1011  
R 1012

RS1/16S101J  
RS1/16S512J  
RS1/16S101J  
RS1/16S101J  
RS1/16S223J

L 1871 Inductor  
L 1872 Inductor  
L 1873 Inductor  
L 1874 Inductor  
L 1881 Inductor

CTF1334  
CTF1393  
CTF1393  
CTF1557  
CTF1306

R 1013  
R 1014  
R 1015  
R 1016  
R 1017

RS1/16S223J  
RS1/16S102J  
RS1/16S102J  
RS1/16S563J  
RS1/16S473J

L 2811 Inductor  
L 2812 Inductor  
L 2813 Inductor  
L 2814 Inductor  
L 2831 Inductor

CTF1557  
CTF1557  
CTF1334  
CTF1334  
CTF1306

R 1102  
R 1104  
R 1105  
R 1106  
R 1107

RS1/16S102J  
RS1/10S101J  
RS1/10S101J  
RS1/10S620J  
RS1/16S102J

L 2832 Inductor  
L 2833 Inductor

CTF1306  
CTF1306

R 1108  
R 1109

RS1/16S102J  
RS1/16S223J



<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>	
R 1110	RS1/16S223J	R 1405	RS1/16S681J	
R 1111	RS1/16S101J	R 1406	RS1/16S821J	
R 1112	RS1/16S101J	R 1407	RS1/16S103J	A
R 1113	RS1/16S332J	R 1408	RS1/16S103J	
R 1114	RS1/16S682J	R 1409	RS1/16S273J	
R 1115	RS1/10S222J	R 1410	RS1/16S273J	
R 1118	RS1/16S0R0J	R 1411	RS1/16S330J	
R 1119	RS1/16S0R0J	R 1412	RS1/16S183J	
R 1201	RS1/16S473J	R 1413	RS1/16S183J	
R 1202	RS1/16S563J	R 1414	RS1/16S151J	
R 1203	RS1/16S473J	R 1415	RS1/16S753J	
R 1204	RS1/16S473J	R 1416	RS1/16S753J	
R 1205	RS1/16S473J	R 1417	RS1/16S681J	
R 1206	RS1/16S473J	R 1418	RS1/16S152J	B
R 1207	RS1/16S473J	R 1419	RS1/16S332J	
R 1208	RS1/16S512J	R 1420	RS1/16S680J	
R 1209	RS1/16S102J	R 1421	RS1/16S151J	
R 1210	RS1/16S101J	R 1422	RS1/16S151J	
R 1211	RS1/16S512J	R 1423	RS1/16S101J	
R 1212	RS1/16S472J	R 1424	RS1/16S680J	
R 1213	RS1/16S472J	R 1425	RS1/16S473J	
R 1214	RS1/16S0R0J	R 1426	RS1/16S681J	
R 1215	RS1/16S0R0J	R 1427	RS1/16S473J	
R 1216	RS1/16S0R0J	R 1428	RS1/16S681J	C
R 1217	RS1/16S0R0J	R 1429	RS1/16S681J	
R 1218	RS1/16S103J	R 1430	RS1/16S681J	
R 1219	RS1/16S103J	R 1431	RS1/16S681J	
R 1220	RS1/16S750J	R 1432	RS1/16S473J	
R 1301	RS1/16S563J	R 1433	RS1/16S473J	
R 1302	RS1/16S473J	R 1501	RS1/16S0R0J	
R 1303	RS1/16S102J	R 1502	RS1/16S0R0J	
R 1304	RS1/16S102J	R 1505	RS1/16S562J	
R 1305	RS1/16S223J	R 1506	RS1/16S562J	
R 1306	RS1/16S223J	R 1507	RS1/16S562J	
R 1307	RS1/16S101J	R 1508	RS1/16S562J	D
R 1308	RS1/16S101J	R 1509	RS1/16S562J	
R 1309	RS1/16S512J	R 1510	RS1/16S562J	
R 1310	RS1/16S102J	R 1511	RS1/16S101J	
R 1311	RS1/16S101J	R 1512	RS1/16S101J	
R 1312	RS1/16S512J	R 1551	RS1/16S0R0J	
R 1313	RS1/16S472J	R 1552	RS1/16S0R0J	
R 1314	RS1/16S472J	R 1553	RS1/16S182J	
R 1315	RS1/16S103J	R 1554	RS1/16S182J	
R 1316	RS1/16S103J	R 1555	RS1/16S102J	
R 1317	RS1/16S750J	R 1556	RS1/16S102J	
R 1351	RS1/16S563J	R 1557	RS1/16S103J	E
R 1352	RS1/16S473J	R 1558	RS1/16S123J	
R 1357	RS1/16S512J	R 1559	RS1/16S123J	
R 1358	RS1/16S102J	R 1560	RS1/16S103J	
R 1359	RS1/16S101J	R 1561	RS1/16S473J	
R 1360	RS1/16S512J	R 1562	RS1/16S473J	
R 1363	RS1/16S472J	R 1563	RS1/16S471J	
R 1364	RS1/16S472J	R 1564	RS1/16S471J	
R 1365	RS1/16S103J	R 1565	RS1/16S471J	
R 1366	RS1/16S103J	R 1566	RS1/16S471J	
R 1367	RS1/16S750J	R 1567	RS1/16S821J	
R 1401	RS1/16S105J	R 1568	RS1/16S821J	F
R 1402	RS1/16S0R0J	R 1569	RS1/16S821J	
R 1403	RS1/16S0R0J	R 1570	RS1/16S821J	
R 1404	RS1/16S681J	R 1571	RS1/16S104J	



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

R 1572 RS1/16S104J  
 R 1573 RS1/16S750J  
 R 1574 RS1/16S105J

R 1664 RS1/16S681J  
 R 1801 RS1/16S152J  
 R 1802 RS1/16S151J

R 1575 RS1/16S750J  
 R 1576 RS1/16S0R0J  
 R 1580 RS1/16S105J  
 R 1581 RS1/4S821J  
 R 1582 RS1/16S223J

R 1803 RS1/16S681J  
 R 1806 RS1/16S0R0J  
 R 1807 RS1/16S391J  
 R 1808 RS1/16S473J  
 R 1810 RS1/16S472J

R 1583 RS1/16S473J  
 R 1584 RS1/16S223J  
 R 1585 RS1/16S563J  
 R 1586 RS1/16S223J  
 R 1587 RS1/16S473J

R 1821 RS1/16S0R0J  
 R 1822 RS1/16S333J  
 R 1823 RS1/16S203J  
 R 1824 RS1/16S822J  
 R 1825 RS1/16S202J

R 1588 RS1/16S101J  
 R 1601 RS1/16S272J  
 R 1602 RS1/16S101J  
 R 1603 RS1/16S333J  
 R 1604 RS1/16S473J

R 1826 RS1/16S564J  
 R 1827 RS1/16S513J  
 R 1828 RS1/16S513J  
 R 1829 RS1/16S102J  
 R 1830 RS1/16S102J

R 1607 RS1/16S104J  
 R 1610 RS1/16S681J  
 R 1611 RS1/16S681J  
 R 1612 RAB4C681J  
 R 1613 RS1/16S472J

R 1831 RS1/16S104J  
 R 1832 RS1/16S513J  
 R 1833 RS1/16S473J  
 R 1834 RS1/16S563J  
 R 1835 RS1/16S104J

R 1614 RS1/16S681J  
 R 1615 RS1/16S473J  
 R 1617 RS1/16S681J  
 R 1618 RAB4C681J  
 R 1619 RS1/16S104J

R 1841 RS1/16S104J  
 R 1843 RS1/16S101J  
 R 1861 RS1/10S105J  
 R 1862 RS1/10S151J  
 R 1871 RS1/10S103J

R 1621 RS1/16S470J  
 R 1622 RS1/16S470J  
 R 1623 RS1/16S103J  
 R 1624 RS1/16S103J  
 R 1625 RAB4C681J

R 1872 RS1/10S103J  
 R 1873 RN1/16SE1001D  
 R 1874 RN1/16SE1101D  
 R 1875 RN1/16SE1001D  
 R 1881 RS1/4S102J

R 1626 RAB4C681J  
 R 1627 RS1/16S563J  
 R 1628 RAB4C681J  
 R 1629 RAB4C681J  
 R 1630 RS1/16S473J

R 1901 RS1/16S102J  
 R 1902 RS1/16S102J  
 R 1903 RS1/16S272J  
 R 1904 RS1/16S272J  
 R 1905 RS1/16S153J

R 1631 RAB4C681J  
 R 1632 RS1/16S473J  
 R 1633 RS1/16S473J  
 R 1634 RAB4C681J  
 R 1635 RAB4C681J

R 1906 RS1/4S102J  
 R 1907 RS1/10S271J  
 R 1908 RS1/10S221J  
 R 1909 RS1/10S271J  
 R 1910 RS1/10S271J

R 1636 RS1/16S473J  
 R 1637 RS1/16S473J  
 R 1638 RS1/16S104J  
 R 1640 RS1/16S681J  
 R 1641 RS1/16S681J

R 1911 RS1/16S122J  
 R 1912 RS1/16S0R0J  
 R 1950 RS1/4S471J  
 R 1951 RS1/16S432J  
 R 1952 RS1/16S222J

R 1642 RS1/16S473J  
 R 1643 RS1/16S473J  
 R 1644 RS1/16S473J  
 R 1647 RS1/16S473J  
 R 1651 RS1/16S473J

R 1953 RS1/16S223J  
 R 1954 RS1/16S122J  
 R 2831 RS1/16S820J  
 R 2832 RS1/16S820J  
 R 2833 RS1/16S223J

R 1652 RS1/16S473J  
 R 1657 RS1/16S473J  
 R 1658 RS1/16S473J  
 R 1659 RS1/16S473J  
 R 1661 RS1/16S681J

R 2834 RS1/16S223J  
 R 2835 RS1/16S471J  
 R 2836 RS1/16S471J  
 R 2837 RS1/16S820J  
 R 2838 RS1/16S820J

R 1662 RS1/16S681J  
 R 1663 RS1/16S681J

R 2839 RS1/16S223J  
 R 2840 RS1/16S223J



<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>
R 2841	RS1/16S471J	C 1106	CKSRYB105K10
R 2842	RS1/16S471J	C 1107	CKSRYB105K10
R 2843	RS1/16S820J	C 1108	CKSRYB105K10
		C 1109	CKSRYB105K10
R 2844	RS1/16S820J	C 1112	CCSRCH471J50
R 2845	RS1/16S223J		
R 2846	RS1/16S223J	C 1113	CCSRCH471J50
R 2847	RS1/16S471J	C 1117	CKSRYB104K25
R 2848	RS1/16S471J	C 1201	CKSRYB104K16
		C 1202	CEV100M16
R 2849	RS1/16SS681J	C 1203	CKSRYB105K10
R 2850	RS1/16S473J		
R 2851	RS1/16S0R0J	C 1204	CKSRYB103K50
R 2852	RS1/16S0R0J	C 1206	CCSRCJ3R0C50
R 2853	RS1/16S0R0J	C 1208	CKSYB106K6R3
		C 1209	CKSYB106K6R3
R 2854	RS1/16S0R0J	C 1210	CKSRYB473K50
R 2855	RS1/16S0R0J		
R 2856	RS1/16S0R0J	C 1301	CEV100M16
R 2862	RS1/16S0R0J	C 1302	CEV220M16
R 2863	RS1/16S0R0J	C 1303	CKSRYB104K16
		C 1304	CEV100M16
R 2873	RS1/16S0R0J	C 1305	CKSRYB105K10
R 2886	RS1/16S473J		
R 2887	RS1/16S104J	C 1306	CKSRYB105K10
R 2888	RS1/10S102J	C 1307	CKSRYB105K10
		C 1308	CKSRYB105K10
		C 1309	CKSRYB105K10
		C 1311	CCSRCJ3R0C50
C 1001	CCSRCH101J50	C 1313	CKSYB106K6R3
C 1002	CCSRCH101J50	C 1314	CKSYB106K6R3
C 1003	CCSRCH101J50	C 1315	CCSRCH471J50
C 1004	CCSRCH101J50	C 1316	CKSRYB473K50
C 1005	CCSRCH101J50	C 1318	CCSRCH471J50
C 1006	CKSRYF104Z25	C 1353	CKSRYB104K16
C 1007	CCSRCH101J50	C 1354	CEV100M16
C 1008	CKSRYF104Z25	C 1355	CKSRYB105K10
C 1009	CCSRCH101J50	C 1361	CCSRCJ3R0C50
C 1010	CKSRYF104Z25	C 1363	CKSYB106K6R3
C 1011	CCSRCH471J50	C 1364	CKSYB106K6R3
C 1012	CCSRCH101J50	C 1365	CKSRYB473K50
C 1013	CCSRCH681J50	C 1401	CKSQYB225K10
C 1014	CCSRCH101J50	C 1402	CKSQYB225K10
C 1015	CCSRCH681J50	C 1403	CCSRCH270J50
C 1016	CCSRCH101J50	C 1404	CKSYB475K16
C 1017	CCSRCH681J50	C 1405	CKSRYB103K50
C 1018	CCSRCH101J50	C 1406	CCSRCH220J50
C 1019	CCSRCH681J50	C 1407	CKSRYB103K50
C 1020	CCSRCH101J50	C 1408	CKSRYB103K50
C 1022	CKSYB106K6R3	C 1409	CCSRCH270J50
C 1023	CKSYB106K6R3	C 1410	CEV470M6R3
C 1026	CCSRCJ3R0C50	C 1411	CCH1301
C 1027	CKSRYB105K10	C 1412	CCSRCH330J50
C 1028	CKSRYB105K10	C 1413	CCSRCH470J50
C 1029	CKSRYB105K10	C 1414	CKSRYB103K50
C 1030	CKSRYB105K10	C 1415	CKSRYB103K50
C 1031	CKSRYB105K10	C 1418	CEV100M16
C 1032	CEV100M16	C 1419	CKSRYB103K50
C 1033	CKSRYB104K16	C 1420	CCSRCH270J50
C 1034	CEV100M16	C 1421	CKSRYB103K50
C 1035	CEV220M16	C 1422	CCSRCH150J50
C 1101	CKSRYB104K16	C 1423	CEV220M16
C 1102	CEV100M16	C 1424	CKSRYB103K50
C 1103	CEV220M16	C 1425	CCSRCH6R0D50

### CAPACITORS

220μF/16V



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

A C 1426 CKSRYB103K50  
 C 1427 CCSRCH6R0D50  
 C 1428 CKSRYB222K50  
 C 1429 CKSRYB103K50  
 C 1430 CKSRYB104K16

C 1607  
 C 1610  
 C 1611  
 C 1612  
 C 1613

CKSRYB103K50  
 CKSRYB102K50  
 CKSRYB102K50  
 CKSRYB102K50  
 CKSRYB102K50

C 1431 CEV100M16  
 C 1432 CKSRYB103K50  
 C 1433 CKSRYB222K50  
 C 1434 CKSRYB222K50  
 C 1435 CKSRYB222K50

C 1614  
 C 1615  
 C 1616  
 C 1619  
 C 1620

CKSRYB105K10  
 CKSRYB103K50  
 CKSRYB104K16  
 CKSRYB104K16  
 CKSRYB104K16

C 1436 CKSRYB103K50  
 C 1437 CKSRYB103K50  
 C 1442 220μF/16V CCH1301  
 C 1501 CKSQYB105K16  
 C 1504 CKSQYB105K16

C 1621  
 C 1622  
 C 1623  
 C 1801  
 C 1802

CKSRYB104K16  
 CKSRYB103K50  
 CKSRYB103K50  
 CKSRYB222K50  
 CKSRYB103K50

C 1505 CKSQYB105K16  
 C 1506 CKSQYB105K16  
 C 1507 CKSQYB105K16  
 C 1508 CKSQYB105K16  
 C 1509 CKSQYB105K16

C 1803  
 C 1805  
 C 1806  
 C 1807  
 C 1808

CCSRCH220J50  
 CEV100M16  
 CKSRYB473K50  
 CEV220M16  
 CKSRYB103K50

C 1510 CKSQYB105K16  
 C 1511 CKSQYB105K16  
 C 1512 CKSQYB105K16  
 C 1513 CKSQYB105K16  
 C 1514 CKSQYB105K16

C 1809  
 C 1810  
 C 1811  
 C 1812  
 C 1821

CKSRYB103K50  
 CKSRYB473K50  
 CKSRYB103K50  
 CKSRYB473K50  
 CKSRYB823K16

C 1515 CKSRYB103K50  
 C 1516 CEV220M16  
 C 1517 CEV100M16  
 C 1551 CCSRCH7R0D50  
 C 1552 CKSRYB222K50

C 1822  
 C 1823  
 C 1824  
 C 1825  
 C 1826

CKSRYB104K25  
 CKSRYB103K50  
 CKSRYB104K16  
 CKSRYB102K50  
 CKSRYF104Z25

C 1553 CKSRYB222K50  
 C 1554 CKSRYB222K50  
 C 1555 CKSRYB222K50  
 C 1556 CCSRCJ3R0C50  
 C 1557 CEV101M16

C 1861  
 C 1862  
 C 1863  
 C 1864  
 C 1865

CKSRYB105K10  
 CKSRYB103K50  
 CKSYB106K6R3  
 CKSRYB104K25  
 CCSRCH102J50

D C 1558 CKSRYB103K50  
 C 1559 CKSQYB225K10  
 C 1560 CKSQYB225K10  
 C 1561 CEV100M16  
 C 1562 CEV100M16

C 1866  
 C 1871  
 C 1872  
 C 1873  
 C 1874

CKSRYB104K16  
 CKSRYF103Z50  
 CKSRYB104K25  
 CKSRYB334K10  
 CKSRYF103Z50

C 1563 CKSYB475K16  
 C 1564 CKSYB475K16  
 C 1565 CKSRYB103K50  
 C 1566 CKSRYB103K50  
 C 1567 CEV470M16

C 1875  
 C 1876  
 C 1877  
 C 1878  
 C 1879

CEV101M16  
 CEV470M16  
 CKSRYB104K16  
 CKSRYF104Z25  
 CKSRYB474K10

E C 1568 CEV470M16  
 C 1569 CEV330M10  
 C 1570 CEV101M4  
 C 1571 CEV330M10  
 C 1572 CEV101M4

C 1880  
 C 1881  
 C 1882  
 C 1901  
 C 1902

CKSRYB104K25  
 CKSRYB104K25  
 CEV470M16  
 CEV101M16  
 CEV101M16

C 1575 CKSRYB104K25  
 C 1576 CKSRYB104K25  
 C 1577 CEV101M16  
 C 1580 22μF CCG1183  
 C 1601 CKSRYB103K50

C 1903  
 C 1904  
 C 1905  
 C 1906  
 C 1907

CKSRYB104K16  
 CKSRYB104K25  
 CKSRYB103K50  
 CKSRYB103K50  
 CKSRYB103K50

F C 1602 CKSRYB104K16  
 C 1603 CKSRYB103K50  
 C 1604 CEV100M16  
 C 1605 CKSRYB103K50  
 C 1606 CKSRYB222K50

C 1908  
 C 1910  
 C 1911  
 C 1912  
 C 1913

CEV101M16  
 CEV101M16  
 CKSRYB104K25  
 CKSRYB103K50  
 CKSRYB103K50



<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
C 1914		CKSRYB103K50	IC 1302	IC	NJM2137V	
C 1915		CEV101M16	IC 1352	IC	NJM2137V	
C 1916		CEV101M16	IC 1401	IC	NJM2391DL1-33	A
C 1917		CEV101M16	IC 1402	IC	NJM4558E	
C 1918		CKSRYB103K50				
			IC 1501	IC	CXA2069Q	
C 1919		CEV101M16	IC 1551	IC	NJM2561F1	
C 1920		CKSRYB103K50	IC 1552	IC	NJM2561F1	
C 1921		CKSRYB103K50	IC 1601	IC	TC7SH04FU	
C 1922		CKSRYB104K16	IC 1603	IC	PE5412A	
C 1923		CEV470M16				
			IC 1604	IC	TC7SH08FU	
C 1924		CKSRYB103K50	IC 1605	IC	TC7SH08FU	
C 1925		CEV220M16	IC 1607	IC	TC7SH08FU	
C 1950		CEV101M16	IC 1608	IC	TC7SH04FU	
C 1951		CKSRYB103K50	IC 1821	IC	NJM2904M	B
C 1952		CKSRYB103K50				
			IC 1871	IC	S-812C33AMC-C2N	
C 1953		CEV101M16	IC 1872	IC	S-L2980A50MC-C7J	
C 1954		CEV101M16	IC 1901	IC	NJM2391DL1-33	
C 1955		CKSRYB103K50	IC 1902	IC	M5237ML	
C 1956		CKSRYB103K50	Q 1101	Transistor	DTC124EU	
C 1957		CEV101M16				
			Q 1102	Transistor	2SA1576	
C 2813		CKSRYF104Z25	Q 1201	Transistor	2SA1037K	
C 2814		CKSRYF104Z25	Q 1202	Transistor	2SC2412K	
C 2831		CEVW100M16	Q 1551	Transistor	2SA1576	
C 2832		CEVW100M16	Q 1552	Transistor	2SA1576	
C 2833		CKSRYB222K50				C
			Q 1555	Transistor	2SC2412K	
C 2834		CKSRYB222K50	Q 1556	Transistor	2SC2412K	
C 2837		CEVW100M16	Q 1557	Transistor	2SC2412K	
C 2838		CEVW100M16	Q 1558	Transistor	2SC2412K	
C 2839		CKSRYB222K50	Q 1559	Transistor	FMG12	
C 2840		CKSRYB222K50				
			Q 1581	Transistor	2SA1037K	
C 2843		CEVW100M16	Q 1582	Transistor	2SC4081	
C 2844		CEVW100M16	Q 1583	Transistor	2SC4081	
C 2845		CKSRYB222K50	Q 1601	Transistor	2SC2412K	
C 2846		CKSRYB222K50	Q 1607	Transistor	2SC4081	
C 2849		CKSSYB102K50				
			Q 1821	Transistor	DTC114EU	
C 2851		CKSRYF103Z50	Q 1822	Transistor	DTC114WK	D
C 2879		CEV470M16	Q 1871	Transistor	DTC114EU	
C 2880		CKSRYF104Z25	Q 1872	Transistor	2SA1037K	
C 2886		CKSRYF104Z25	Q 1881	Transistor	DTC114EU	
C 2887		CKSRYF104Z25				
			Q 1901	Transistor	2SA1036K	
			Q 1902	Transistor	2SA1036K	
			Q 1903	Transistor	DTC114EK	
			Q 1904	Transistor	DTC114EK	
			Q 1905	Transistor	2SB1260	
			Q 1906	Transistor	DTC114EK	
			Q 1907	Transistor	2SB1629	E
			Q 1908	Transistor	2SD2396	
			Q 1909	Transistor	2SD2396	
			Q 1951	Transistor	2SD2098	
			Q 1952	Transistor	2SD2098	
			Q 2801	Transistor	2SC4081	
			Q 2831	Transistor	DTC323TU	
			Q 2832	Transistor	DTC323TU	
			Q 2833	Transistor	DTC323TU	
			Q 2844	Transistor	DTC323TU	
			Q 2845	Transistor	DTC323TU	
			Q 2846	Transistor	DTC323TU	F
			Q 2886	Transistor	2SC4081	
			D 1001	Diode	UDZS6R8(B)	
			D 1002	Diode	UDZS6R8(B)	

**Mother Tuner Unit****Consists of****Relay PCB****Mother PCB****Connector PCB****JKL****Unit Number:CWM9137(AVIC-N1/UC)****Unit Name:Mother Tuner Unit****MISCELLANEOUS**

IC 1001	IC	NJM2137V
IC 1002	IC	TA2050F
IC 1101	IC	HA12240FP
IC 1102	IC	TA2050F
IC 1201	IC	NJM2137V
IC 1301	IC	TA2050F

Q 2844	Transistor	DTC323TU
Q 2845	Transistor	DTC323TU
Q 2846	Transistor	DTC323TU
Q 2886	Transistor	2SC4081
D 1001	Diode	UDZS6R8(B)
D 1002	Diode	UDZS6R8(B)



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

D 1003 Diode UDZS6R8(B)  
 D 1004 Diode UDZS6R8(B)  
 D 1005 Diode UDZS6R8(B)  
 D 1006 Diode UDZS6R8(B)

D 1951 Diode UDZS5R6(B)  
 D 2801 Diode UDZS6R8(B)  
 D 2802 Diode UDZS6R8(B)  
 D 2811 Diode UDZS10(B)

D 1007 Diode UDZS6R8(B)  
 D 1008 Diode UDZS6R8(B)  
 D 1009 Diode UDZS6R8(B)  
 D 1010 Diode UDZS6R8(B)  
 D 1011 Diode UDZS6R8(B)

D 2812 Diode UDZS10(B)  
 D 2813 Diode UDZS5R6(B)  
 D 2814 Diode UDZS5R6(B)  
 D 2886 Diode S1G-6904G2P  
 D 2887 Diode S1G-6904G2P

D 1012 Diode UMZ6R8N  
 D 1013 Diode MA153  
 D 1014 Diode UMZ6R8N  
 D 1015 Diode UMZ6R8N  
 D 1016 Diode UDZS6R8(B)

ZNR1401 Surge Protector  
 L 1001 Inductor RCCA-201Q31UA-PI  
 L 1002 Inductor CTF1334  
 L 1003 Inductor CTF1334  
 L 1004 Inductor CTF1334

D 1017 Diode UDZS6R8(B)  
 D 1018 Diode UDZS6R8(B)  
 D 1019 Diode UMZ6R8N  
 D 1020 Diode UMZ6R8N  
 D 1021 Diode UMZ6R8N

L 1005 Inductor CTF1306  
 L 1006 Inductor CTF1306  
 L 1007 Inductor CTF1306  
 L 1008 Inductor CTF1306  
 L 1009 Inductor CTF1306

D 1022 Diode UMZ6R8N  
 D 1023 Diode UDZS6R8(B)  
 D 1101 Diode UMZ6R8N  
 D 1102 Diode UMZ6R8N  
 D 1103 Diode DAN202U

L 1010 Inductor CTF1306  
 L 1011 Inductor CTF1306  
 L 1012 Inductor CTF1306  
 L 1013 Inductor CTF1334  
 L 1014 Inductor CTF1334

D 1201 Diode 1SS355  
 D 1202 Diode 1SS355  
 D 1203 Diode HZU12(B2)  
 D 1204 Diode HZU12(B2)  
 D 1205 Diode HZU12(B2)

L 1015 Inductor CTF1334  
 L 1016 Inductor CTF1382  
 L 1017 Inductor CTF1334  
 L 1018 Inductor CTF1382  
 L 1019 Inductor CTF1382

D 1206 Diode HZU12(B2)  
 D 1207 Diode UMZ6R8N  
 D 1208 Diode UMZ6R8N  
 D 1301 Diode UMZ6R8N  
 D 1302 Diode UMZ6R8N

L 1020 Inductor CTF1334  
 L 1021 Inductor CTF1334  
 L 1022 Inductor CTF1334  
 L 1026 Inductor CTF1399  
 L 1101 Inductor LCTA2R2J2520

D 1303 Diode UMZ6R8N  
 D 1304 Diode UMZ6R8N  
 D 1353 Diode UMZ6R8N  
 D 1354 Diode UMZ6R8N  
 D 1401 Diode 1SR154-400

L 1102 Inductor CTF1334  
 L 1103 Inductor CTF1334  
 L 1104 Inductor CTF1334  
 L 1105 Inductor CTF1334  
 L 1201 Inductor CTF1399

D 1402 Diode 1SR154-400  
 D 1403 Diode 1SR154-400  
 D 1551 Diode MA153  
 D 1552 Diode MA153  
 D 1553 Diode DAP202U

L 1301 Inductor CTF1399  
 L 1302 Inductor CTF1334  
 L 1303 Inductor CTF1334  
 L 1304 Inductor CTF1334  
 L 1305 Inductor CTF1334

D 1580 Diode MA111  
 D 1581 Diode DAN202U  
 D 1582 Diode UDZS8R2(B)  
 D 1602 Diode DAN202U  
 D 1821 Diode S1G-6904G2P

L 1351 Inductor CTF1399  
 L 1401 Inductor LCTA4R7J2520  
 L 1403 Inductor LCTA1R0J2520  
 L 1405 Inductor LCTA1R0J2520  
 L 1406 Inductor LCTA1R0J2520

D 1822 Diode UDZS18(B)  
 D 1823 Diode UDZS18(B)  
 D 1824 Diode 1SS355  
 D 1871 Diode UDZS5R6(B)  
 D 1881 Diode UDZS18(B)

L 1501 Inductor LCTA100J2520  
 L 1551 Inductor LCTA101J2520  
 L 1552 Inductor LCTA100J2520  
 L 1553 Inductor LCTA100J2520  
 L 1554 Inductor LCTA100J2520

D 1882 Diode 1SS355  
 D 1883 Diode UDZS6R8(B)  
 D 1884 Diode RB500V-40  
 D 1902 Diode HZU9R1(B3)  
 D 1903 Diode UDZS5R6(B)

L 1555 Inductor LCTA100J2520  
 L 1601 Inductor CTF1379  
 L 1602 Inductor CTF1379  
 L 1603 Inductor CTF1379  
 L 1604 Inductor CTF1379

D 1950 Diode UDZS13(B)

L 1766 Inductor CTF1379



<u>Circuit Symbol and No.</u>			<u>Part No.</u>	<u>Circuit Symbol and No.</u>			<u>Part No.</u>
L 1821	Inductor		CTF1306	R 1005			RS1/16S472J
L 1841	Inductor		CTF1334	R 1006			RS1/16S512J
L 1842	Inductor		CTF1334	R 1007			RS1/16S102J
L 1849	Inductor		CTF1393				
				R 1008			RS1/16S101J
L 1850	Inductor		CTF1334	R 1009			RS1/16S512J
L 1851	Inductor		CTF1334	R 1010			RS1/16S101J
L 1852	Inductor		CTF1306	R 1011			RS1/16S101J
L 1853	Inductor		CTF1306	R 1012			RS1/16S223J
L 1861	Inductor		CTF1334				
				R 1013			RS1/16S223J
L 1862	Inductor		CTF1334	R 1014			RS1/16S102J
L 1871	Inductor		CTF1334	R 1015			RS1/16S102J
L 1872	Inductor		CTF1393	R 1016			RS1/16S563J
L 1873	Inductor		CTF1393	R 1017			RS1/16S473J
L 1881	Inductor		CTF1306				
				R 1102			RS1/16S102J
L 2811	Inductor		CTF1557	R 1104			RS1/10S101J
L 2812	Inductor		CTF1557	R 1105			RS1/10S101J
L 2813	Inductor		CTF1334	R 1106			RS1/10S620J
L 2814	Inductor		CTF1334	R 1107			RS1/16S102J
L 2831	Inductor		CTF1306				
				R 1108			RS1/16S102J
L 2832	Inductor		CTF1306	R 1109			RS1/16S223J
L 2833	Inductor		CTF1306	R 1110			RS1/16S223J
L 2834	Inductor		CTF1306	R 1111			RS1/16S101J
L 2835	Inductor		CTF1306	R 1112			RS1/16S101J
L 2836	Inductor		CTF1306				
				R 1113			RS1/16S332J
L 2851	Inductor		CTF1334	R 1114			RS1/16S682J
L 2852	Inductor		CTF1334	R 1115			RS1/10S222J
L 2853	Inductor		CTF1334	R 1118			RS1/16S0R0J
L 2854	Inductor		CTF1334	R 1119			RS1/16S0R0J
L 2855	Inductor		CTF1334				
				R 1201			RS1/16S473J
L 2856	Inductor		CTF1334	R 1202			RS1/16S563J
L 2857	Inductor		CTF1334	R 1203			RS1/16S473J
L 2859	Inductor		CTF1334	R 1204			RS1/16S473J
L 2861	Inductor		CTF1334	R 1205			RS1/16S473J
L 2862	Inductor		CTF1334				
				R 1206			RS1/16S473J
L 2886	Inductor		CTF1295	R 1207			RS1/16S473J
X 1601	Radiator 12.58MHz		CSS1601	R 1208			RS1/16S512J
VR1551	Semi-fixed 10kΩ(B)		CCP1448	R 1209			RS1/16S102J
FU1201	Fuse 4A		CEK1260	R 1210			RS1/16S101J
FU1701	Fuse 4A		CEK1260				
				R 1211			RS1/16S512J
FU1702	Fuse 4A		CEK1260	R 1212			RS1/16S472J
FU1950	Fuse 2A		CEK1257	R 1213			RS1/16S472J
FU2801	Fuse 5A		CEK1289	R 1214			RS1/16S0R0J
GY1865	Sensor		CSX1074	R 1215			RS1/16S0R0J
GY1861	Sensor		CSX1042				
				R 1216			RS1/16S0R0J
EF1001	EMI Filter		CCG1082	R 1217			RS1/16S0R0J
EF1201	EMI Filter		CCG1067	R 1218			RS1/16S103J
EF1301	EMI Filter		CCG1067	R 1219			RS1/16S103J
EF1351	EMI Filter		CCG1067	R 1220			RS1/16S750J
EF1701	EMI Filter		CCG1067				
				R 1301			RS1/16S563J
EF1901	EMI Filter		CCG1172	R 1302			RS1/16S473J
EF1902	EMI Filter		CCG1172	R 1303			RS1/16S102J
EF1903	EMI Filter		CCG1172	R 1304			RS1/16S102J
EF2801	EMI Filter		CCG1067	R 1305			RS1/16S223J
Y 1401	FM/AM Tuner Unit		CWE1651				
				R 1306			RS1/16S223J
	GPS Unit		CWX2960	R 1307			RS1/16S101J
				R 1308			RS1/16S101J
				R 1309			RS1/16S512J
				R 1310			RS1/16S102J
<b>RESISTORS</b>							
R 1001			RS1/16S750J				
R 1004			RS1/16S472J	R 1311			RS1/16S101J
				R 1312			RS1/16S512J



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

R 1313 RS1/16S472J  
 R 1314 RS1/16S472J  
 R 1315 RS1/16S103J

R 1568 RS1/16S821J  
 R 1569 RS1/16S821J  
 R 1570 RS1/16S821J

R 1316 RS1/16S103J  
 R 1317 RS1/16S750J  
 R 1351 RS1/16S563J  
 R 1352 RS1/16S473J  
 R 1357 RS1/16S512J

R 1571 RS1/16S104J  
 R 1572 RS1/16S104J  
 R 1573 RS1/16S750J  
 R 1574 RS1/16S105J  
 R 1575 RS1/16S750J

R 1358 RS1/16S102J  
 R 1359 RS1/16S101J  
 R 1360 RS1/16S512J  
 R 1363 RS1/16S472J  
 R 1364 RS1/16S472J

R 1576 RS1/16S0R0J  
 R 1580 RS1/16S105J  
 R 1581 RS1/4S821J  
 R 1582 RS1/16S223J  
 R 1583 RS1/16S473J

R 1365 RS1/16S103J  
 R 1366 RS1/16S103J  
 R 1367 RS1/16S750J  
 R 1402 RS1/16S0R0J  
 R 1403 RS1/16S0R0J

R 1584 RS1/16S223J  
 R 1585 RS1/16S563J  
 R 1586 RS1/16S223J  
 R 1587 RS1/16S473J  
 R 1588 RS1/16S101J

R 1404 RS1/16S681J  
 R 1405 RS1/16S681J  
 R 1407 RS1/16S103J  
 R 1408 RS1/16S103J  
 R 1409 RS1/16S273J

R 1601 RS1/16S272J  
 R 1602 RS1/16S101J  
 R 1603 RS1/16S333J  
 R 1604 RS1/16S473J  
 R 1607 RS1/16S104J

R 1410 RS1/16S273J  
 R 1412 RS1/16S183J  
 R 1413 RS1/16S183J  
 R 1415 RS1/16S753J  
 R 1416 RS1/16S753J

R 1610 RS1/16S681J  
 R 1611 RS1/16S681J  
 R 1612 RAB4C681J  
 R 1613 RS1/16S472J  
 R 1614 RS1/16S681J

R 1426 RS1/16S681J  
 R 1428 RS1/16S681J  
 R 1429 RS1/16S681J  
 R 1431 RS1/16S681J  
 R 1434 RS1/4S0R0J

R 1615 RS1/16S473J  
 R 1617 RS1/16S681J  
 R 1618 RAB4C681J  
 R 1619 RS1/16S104J  
 R 1621 RS1/16S470J

R 1501 RS1/16S0R0J  
 R 1502 RS1/16S0R0J  
 R 1505 RS1/16S562J  
 R 1506 RS1/16S562J  
 R 1507 RS1/16S562J

R 1622 RS1/16S470J  
 R 1623 RS1/16S103J  
 R 1624 RS1/16S103J  
 R 1625 RAB4C681J  
 R 1626 RAB4C681J

R 1508 RS1/16S562J  
 R 1509 RS1/16S562J  
 R 1510 RS1/16S562J  
 R 1511 RS1/16S101J  
 R 1512 RS1/16S101J

R 1627 RS1/16S563J  
 R 1629 RAB4C681J  
 R 1630 RS1/16S473J  
 R 1631 RAB4C681J  
 R 1632 RS1/16S473J

R 1551 RS1/16S0R0J  
 R 1552 RS1/16S0R0J  
 R 1553 RS1/16S182J  
 R 1554 RS1/16S182J  
 R 1555 RS1/16S102J

R 1633 RS1/16S473J  
 R 1634 RAB4C681J  
 R 1635 RAB4C681J  
 R 1636 RS1/16S473J  
 R 1637 RS1/16S473J

R 1556 RS1/16S102J  
 R 1557 RS1/16S103J  
 R 1558 RS1/16S123J  
 R 1559 RS1/16S123J  
 R 1560 RS1/16S103J

R 1638 RS1/16S104J  
 R 1640 RS1/16S681J  
 R 1641 RS1/16S681J  
 R 1642 RS1/16S473J  
 R 1643 RS1/16S473J

R 1561 RS1/16S473J  
 R 1562 RS1/16S473J  
 R 1563 RS1/16S471J  
 R 1564 RS1/16S471J  
 R 1565 RS1/16S471J

R 1644 RS1/16S473J  
 R 1647 RS1/16S473J  
 R 1651 RS1/16S473J  
 R 1652 RS1/16S473J  
 R 1657 RS1/16S473J

R 1566 RS1/16S471J  
 R 1567 RS1/16S821J

R 1658 RS1/16S473J  
 R 1659 RS1/16S473J



<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>	
R 1661	RS1/16S681J	R 2845	RS1/16S223J	
R 1662	RS1/16S681J	R 2846	RS1/16S223J	
R 1663	RS1/16S681J	R 2847	RS1/16S471J	A
R 1664	RS1/16S681J	R 2848	RS1/16S471J	
R 1821	RS1/16S0R0J	R 2849	RS1/16SS681J	
R 1822	RS1/16S333J	R 2850	RS1/16S473J	
R 1823	RS1/16S203J	R 2851	RS1/16S0R0J	
R 1824	RS1/16S822J	R 2852	RS1/16S0R0J	
R 1825	RS1/16S202J	R 2853	RS1/16S0R0J	
R 1826	RS1/16S564J	R 2854	RS1/16S0R0J	
R 1827	RS1/16S513J	R 2855	RS1/16S0R0J	
R 1828	RS1/16S513J	R 2856	RS1/16S0R0J	
R 1829	RS1/16S102J	R 2862	RS1/16S0R0J	
R 1830	RS1/16S102J	R 2863	RS1/16S0R0J	B
R 1831	RS1/16S104J	R 2873	RS1/16S0R0J	
R 1832	RS1/16S513J	R 2886	RS1/16S473J	
R 1833	RS1/16S473J	R 2887	RS1/16S104J	
R 1834	RS1/16S563J	R 2888	RS1/10S102J	
R 1835	RS1/16S104J	<b>CAPACITORS</b>		
R 1841	RS1/16S104J	C 1001	CCSRCH101J50	
R 1843	RS1/16S101J	C 1002	CCSRCH101J50	
R 1861	RS1/10S105J	C 1003	CCSRCH101J50	
R 1862	RS1/10S151J	C 1004	CCSRCH101J50	
R 1871	RS1/10S103J	C 1005	CCSRCH101J50	C
R 1872	RS1/10S103J			
R 1873	RN1/16SE1001D	C 1006	CKSRYF104Z25	
R 1874	RN1/16SE1101D	C 1007	CCSRCH101J50	
R 1875	RN1/16SE1001D	C 1008	CKSRYF104Z25	
		C 1009	CCSRCH101J50	
R 1881	RS1/4S102J	C 1010	CKSRYF104Z25	
R 1901	RS1/16S102J			
R 1902	RS1/16S102J	C 1011	CCSRCH471J50	
R 1903	RS1/16S272J	C 1012	CCSRCH101J50	
R 1904	RS1/16S272J	C 1013	CCSRCH681J50	
		C 1014	CCSRCH101J50	
R 1905	RS1/16S153J	C 1015	CCSRCH681J50	
R 1906	RS1/4S102J			D
R 1907	RS1/10S271J	C 1016	CCSRCH101J50	
R 1908	RS1/10S221J	C 1017	CCSRCH681J50	
R 1909	RS1/10S271J	C 1018	CCSRCH101J50	
		C 1019	CCSRCH681J50	
R 1910	RS1/10S271J	C 1020	CCSRCH101J50	
R 1911	RS1/16S122J			
R 1912	RS1/16S0R0J	C 1022	CKSYB106K6R3	
R 1950	RS1/4S471J	C 1023	CKSYB106K6R3	
R 1951	RS1/16S432J	C 1026	CCSRCJ3ROC50	
		C 1027	CKSRYB105K10	
R 1952	RS1/16S222J	C 1028	CKSRYB105K10	
R 1953	RS1/16S223J			
R 1954	RS1/16S122J	C 1029	CKSRYB105K10	E
R 2831	RS1/16S820J	C 1030	CKSRYB105K10	
R 2832	RS1/16S820J	C 1031	CKSRYB105K10	
		C 1032	CEV100M16	
R 2833	RS1/16S223J	C 1033	CKSRYB104K16	
R 2834	RS1/16S223J			
R 2835	RS1/16S471J	C 1034	CEV100M16	
R 2836	RS1/16S471J	C 1035	CEV220M16	
R 2837	RS1/16S820J	C 1101	CKSRYB104K16	
		C 1102	CEV100M16	
R 2838	RS1/16S820J	C 1103	CEV220M16	
R 2839	RS1/16S223J			
R 2840	RS1/16S223J	C 1106	CKSRYB105K10	
R 2841	RS1/16S471J	C 1107	CKSRYB105K10	F
R 2842	RS1/16S471J	C 1108	CKSRYB105K10	
		C 1109	CKSRYB105K10	
R 2843	RS1/16S820J	C 1112	CCSRCH471J50	
R 2844	RS1/16S820J			



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

A	C 1113	CCSRCH471J50	C 1513	CKSQYB105K16
	C 1117	CKSRYB104K25	C 1514	CKSQYB105K16
	C 1201	CKSRYB104K16	C 1515	CKSRYB103K50
	C 1202	CEV100M16	C 1516	CEV220M16
	C 1203	CKSRYB105K10	C 1517	CEV100M16
■	C 1204	CKSRYB103K50	C 1551	CCSRCH7R0D50
	C 1206	CCSRCJ3R0C50	C 1552	CKSRYB222K50
	C 1208	CKSYB106K6R3	C 1553	CKSRYB222K50
	C 1209	CKSYB106K6R3	C 1554	CKSRYB222K50
	C 1210	CKSRYB473K50	C 1555	CKSRYB222K50
B	C 1301	CEV100M16	C 1556	CCSRCJ3R0C50
	C 1302	CEV220M16	C 1557	CEV101M16
	C 1303	CKSRYB104K16	C 1558	CKSRYB103K50
	C 1304	CEV100M16	C 1559	CKSQYB225K10
	C 1305	CKSRYB105K10	C 1560	CKSQYB225K10
■	C 1306	CKSRYB105K10	C 1561	CEV100M16
	C 1307	CKSRYB105K10	C 1562	CEV100M16
	C 1308	CKSRYB105K10	C 1563	CKSYB475K16
	C 1309	CKSRYB105K10	C 1564	CKSYB475K16
	C 1311	CCSRCJ3R0C50	C 1565	CKSRYB103K50
C	C 1313	CKSYB106K6R3	C 1566	CKSRYB103K50
	C 1314	CKSYB106K6R3	C 1567	CEV470M16
	C 1315	CCSRCH471J50	C 1568	CEV470M16
	C 1316	CKSRYB473K50	C 1569	CEV330M10
	C 1318	CCSRCH471J50	C 1570	CEV101M4
■	C 1353	CKSRYB104K16	C 1571	CEV330M10
	C 1354	CEV100M16	C 1572	CEV101M4
	C 1355	CKSRYB105K10	C 1575	CKSRYB104K25
	C 1361	CCSRCJ3R0C50	C 1576	CKSRYB104K25
	C 1363	CKSYB106K6R3	C 1577	CEV101M16
D	C 1364	CKSYB106K6R3	C 1580	CCG1183
	C 1365	CKSRYB473K50	C 1601	CKSRYB103K50
	C 1401	CKSQYB225K10	C 1602	CKSRYB104K16
	C 1402	CKSQYB225K10	C 1603	CKSRYB103K50
	C 1404	CKSYB475K16	C 1604	CEV100M16
■	C 1405	CKSRYB103K50	C 1605	CKSRYB103K50
	C 1407	CKSRYB103K50	C 1606	CKSRYB222K50
	C 1408	CKSRYB103K50	C 1607	CKSRYB103K50
	C 1410	CEV470M6R3	C 1610	CKSRYB102K50
	C 1411	CCH1301	C 1611	CKSRYB102K50
E	C 1415	CKSRYB103K50	C 1612	CKSRYB102K50
	C 1418	CEV100M16	C 1613	CKSRYB102K50
	C 1423	CEV220M16	C 1614	CKSRYB105K10
	C 1424	CKSRYB103K50	C 1615	CKSRYB103K50
	C 1425	CCSRCH6R0D50	C 1616	CKSRYB104K16
■	C 1427	CCSRCH6R0D50	C 1619	CKSRYB104K16
	C 1429	CKSRYB103K50	C 1620	CKSRYB104K16
	C 1430	CKSRYB104K16	C 1621	CKSRYB104K16
	C 1431	CEV100M16	C 1622	CKSRYB103K50
	C 1442	CCH1301	C 1623	CKSRYB103K50
F	C 1501	CKSQYB105K16	C 1821	CKSRYB823K16
	C 1504	CKSQYB105K16	C 1822	CKSRYB104K25
	C 1505	CKSQYB105K16	C 1823	CKSRYB103K50
	C 1506	CKSQYB105K16	C 1824	CKSRYB104K16
	C 1507	CKSQYB105K16	C 1825	CKSRYB102K50
■	C 1508	CKSQYB105K16	C 1826	CKSRYF104Z25
	C 1509	CKSQYB105K16	C 1861	CKSRYB105K10
	C 1510	CKSQYB105K16	C 1862	CKSRYB103K50
	C 1511	CKSQYB105K16	C 1863	CKSYB106K6R3
	C 1512	CKSQYB105K16	C 1864	CKSRYB104K25



Circuit Symbol and No.	Part No.		Circuit Symbol and No.	Part No.
C 1865	CCSRCH102J50		C 2849	CKSSYB102K50
C 1866	CKSRYB104K16		C 2851	CKSRYF103Z50
C 1871	CKSRYF103Z50		C 2879	CEV470M16
C 1872	CKSRYB104K25		C 2880	CKSRYF104Z25
C 1873	CKSRYB334K10		C 2886	CKSRYF104Z25
C 1874	CKSRYF103Z50		C 2887	CKSRYF104Z25
C 1875	CEV101M16			
C 1876	CEV470M16			
C 1877	CKSRYB104K16			
C 1878	CKSRYF104Z25			
C 1879	CKSRYB474K10			
C 1880	CKSRYB104K25			
C 1881	CKSRYB104K25			
C 1882	CEV470M16			
C 1901	CEV101M16			
C 1902	CEV101M16			
C 1903	CKSRYB104K16			
C 1904	CKSRYB104K25			
C 1905	CKSRYB103K50			
C 1906	CKSRYB103K50			
C 1907	CKSRYB103K50			
C 1908	CEV101M16			
C 1910	CEV101M16			
C 1911	CKSRYB104K25			
C 1912	CKSRYB103K50			
C 1913	CKSRYB103K50			
C 1914	CKSRYB103K50			
C 1915	CEV101M16			
C 1916	CEV101M16			
C 1917	CEV101M16			
C 1918	CKSRYB103K50			
C 1919	CEV101M16			
C 1920	CKSRYB103K50			
C 1921	CKSRYB103K50			
C 1922	CKSRYB104K16			
C 1923	CEV470M16			
C 1924	CKSRYB103K50			
C 1925	CEV220M16			
C 1950	CEV101M16			
C 1951	CKSRYB103K50			
C 1952	CKSRYB103K50			
C 1953	CEV101M16			
C 1954	CEV101M16			
C 1955	CKSRYB103K50			
C 1956	CKSRYB103K50			
C 1957	CEV101M16			
C 2813	CKSRYF104Z25			
C 2814	CKSRYF104Z25			
C 2831	CEVW100M16			
C 2832	CEVW100M16			
C 2833	CKSRYB222K50			
C 2834	CKSRYB222K50			
C 2837	CEVW100M16			
C 2838	CEVW100M16			
C 2839	CKSRYB222K50			
C 2840	CKSRYB222K50			
C 2843	CEVW100M16			
C 2844	CEVW100M16			
C 2845	CKSRYB222K50			
C 2846	CKSRYB222K50			

Monitor Unit

Consists of

Monitor PCB

Upper PCB

Inverter PCB

GHI

Unit Number:CWM9134(AVIC-X1/EW)

Unit Number:CWM9135(AVIC-N1/UC)

Unit Name:Monitor Unit

MISCELLANEOUS

IC 4001	IC	TC90A64AF-P
IC 4061	IC	TC7SH08FU
IC 4141	IC	TC7SH08FU
IC 4142	IC	TK15404AMI
IC 4151	IC	NJM2138V
IC 4181	IC	NJM082BV
IC 4212	IC	TC7SH08FU
IC 4311	IC	NJM062V
IC 4601	IC	PE5413A
IC 4602	IC	S-80835CNNB-B
IC 4651	IC	S-93C46BR0I-J8
IC 4701	IC	PD6340A
IC 4702	IC	TC7SH08FU
IC 4841	IC	R1130H251B
IC 4851	IC	R1224N102H
IC 4861	IC	MAX1748EUE
IC 4901	IC	NJM2903V
IC 5002	IC	TC7SET08FU
IC 5003	IC	OZ961IS
IC 5004	FET	SI6544DQ
IC 5005	FET	SI6544DQ
Q 4002	Transistor	2SC4617
Q 4101	Transistor	2SC4617
Q 4102	Transistor	2SA1774
Q 4103	Transistor	2SC4617
Q 4111	Transistor	2SC4617
Q 4112	Transistor	2SA1774
Q 4113	Transistor	2SC4617
Q 4121	Transistor	2SC4617
Q 4122	Transistor	2SA1774
Q 4123	Transistor	2SC4617
Q 4131	Transistor	2SC4617
Q 4132	Transistor	2SA1774
Q 4133	Transistor	2SC4617
Q 4151	Transistor	UMZ1N
Q 4152	Transistor	UMZ1N
Q 4153	Transistor	UMZ1N
Q 4154	Transistor	UMZ1N

**Monitor Unit**  
**Consists of**  
**Monitor PCB**  
**Upper PCB**  
**Inverter PCB**

**GHI**

Unit Number: CWM9134 (AVIC-X1/EW)

**Unit Number: CWM9135(AVIC-N1/UC)**

Unit Name:Monitor Unit

## MISCELLANEOUS



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

Q 4155 Transistor  
Q 4156 Transistor

UMZ1N  
UMZ1N

D 5006 LED(X1/EW)  
D 5007 LED

CL-195SR-CD  
CL-190UB2-X

Q 4182 Transistor  
Q 4183 Transistor  
Q 4603 Transistor  
Q 4681 Transistor  
Q 4682 Transistor

UMX2N  
UMT2N  
2SC4617  
IMD2A  
IMD2A

D 5008 LED  
D 5009 Diode  
D 5010 Diode  
D 5011 Diode  
D 5012 Diode

CL-190UB2-X  
RB751V40  
UDZS6R2(B)  
UDZS6R2(B)  
UDZS6R2(B)

Q 4683 Transistor  
Q 4741 Transistor  
Q 4742 Transistor  
Q 4831 Transistor  
Q 4832 Transistor

FMG12  
DTA123JK  
DTC124EK  
2SB1260  
DTC114EK

D 5013 Diode  
D 5014 Diode  
D 5016 Diode  
D 5030 Diode(X1/EW)  
D 5101 Diode

MA147  
MA147  
UDZS5R6(B)  
DAN202U  
UDZS8R2(B)

Q 4833 Transistor  
Q 4835 Transistor  
Q 4851 FET  
Q 5001 Transistor  
Q 5002 Transistor

2SC4617  
2SD1664  
CPH6316  
2SC4617  
2SC4617

L 4001 Inductor  
L 4002 Inductor  
L 4003 Inductor  
L 4004 Inductor  
L 4005 Inductor-Array

CTF1306  
CTF1306  
CTF1306  
CTF1306  
CTF1421

Q 5003 Transistor  
Q 5004 Transistor  
Q 5011 Transistor  
Q 5020 Transistor  
Q 5101 Transistor

DTA144EE  
2SC4617  
2SC4081  
2SC4617  
2SC4617

L 4006 Inductor-Array  
L 4008 Inductor  
L 4009 Inductor  
L 4011 Inductor  
L 4012 Ferrite Bead

CTF1421  
CTF1306  
CTF1306  
CTF1306  
CTF1528

Q 5102 Transistor  
Q 5103 Transistor  
Q 5105 Transistor  
D 4301 Diode  
D 4311 Diode

2SC4617  
2SA1774  
UMX2N  
DAN202U  
AM-30-21

L 4013 Ferrite Bead  
L 4014 Ferrite Bead  
L 4015 Inductor  
L 4016 Ferrite Bead  
L 4017 Inductor

CTF1528  
CTF1528  
CTF1306  
CTF1528  
CTF1306

D 4321 LED  
D 4322 LED  
D 4355 LED  
D 4356 LED  
D 4357 LED

CL-490S-WF-SD  
CL-490S-WF-SD  
CL-190UB2-X  
CL-190UB2-X  
CL-190UB2-X

L 4071 Inductor  
L 4074 Inductor  
L 4075 Inductor  
L 4078 Inductor  
L 4079 Inductor

LCKA100J2520  
LCKA100J2520  
LCKB100K2520  
LCKA100J2520  
CTF1306

D 4358 LED  
D 4601 Diode  
D 4681 Diode  
D 4682 Diode  
D 4683 Diode

CL-190UB2-X  
RB500V-40  
MA111  
MA111  
UDZS5R6(B)

L 4081 Inductor  
L 4101 Inductor  
L 4141 Inductor  
L 4151 Inductor  
L 4152 Inductor

LCYC2R2K2125  
LCKA100J2520  
LCKA100J2520  
LCKA100J2520  
LCKA100J2520

D 4684 Diode  
D 4701 Diode  
D 4702 Diode  
D 4703 Diode  
D 4704 Diode

UDZS5R6(B)  
UDZS5R6(B)  
UDZS5R6(B)  
UDZS5R6(B)  
UDZS5R6(B)

L 4181 Inductor  
L 4182 Inductor  
L 4311 Inductor  
L 4601 Inductor  
L 4701 Inductor

LCKA101J2520  
LCKA101J2520  
LCKA100J2520  
LCKA100J2520  
LCKA100J2520

D 4705 Diode  
D 4706 Diode  
D 4831 Diode  
D 4835 Diode  
D 4852 Diode

UDZS5R6(B)  
UDZS5R6(B)  
UDZS22(B)  
UDZS5R6(B)  
U2FWJ44N

L 4801 Inductor  
L 4802 Inductor  
L 4803 Inductor  
L 4804 Inductor  
L 4841 Choke Coil 10μH

LCKA100J2520  
LCKA100J2520  
LCKA100J2520  
LCKA100J2520  
CTH1249

D 4861 Diode  
D 4862 Diode  
D 4863 Diode  
D 4864 Diode  
D 4865 Diode

RB160M-30  
RB500V-40  
RB500V-40  
RB500V-40  
RB500V-40

L 4851 Choke Coil 10μH  
L 4852 Choke Coil 18μH  
L 4861 Choke Coil 10μH  
L 4862 Choke Coil 6.8μH  
L 4863 Inductor

CTH1259  
CTH1250  
CTH1249  
CTH1248  
LCTC100K1608

D 4866 Diode  
D 4867 Diode  
D 4868 Diode  
D 4869 Diode  
D 5001 Diode

RB500V-40  
RB500V-40  
RB500V-40  
RB500V-40  
UDZS6R8(B)

L 4864 Inductor  
L 4865 Inductor  
L 4901 Inductor  
T 5001 Transformer  
TH4601 Thermistor

LCKA100J2520  
LCKA100J2520  
LCKA2R2J2520  
CTT1103  
CCX1051

D 5003 LED  
D 5004 LED(X1/EW)  
D 5005 LED

CL-195PG-CD  
CL-195SR-CD  
CL-195PG-CD

X 4001 Crystal Resonator 42MHz  
X 4601 Radiator 12.58MHz  
X 4701 Ceramic Resonator 4.97MHz

CSS1604  
CSS1601  
CSS1573



<u>Circuit Symbol and No.</u>			<u>Part No.</u>	<u>Circuit Symbol and No.</u>			<u>Part No.</u>
S 4351	Push Switch		CSG1111	R 4120			RS1/16S391J
S 4352	Push Switch		CSG1111	R 4121			RS1/16S153J
				R 4122			RS1/16S104J
S 4353	Push Switch		CSG1111				
S 4354	Push Switch		CSG1111	R 4123			RS1/16S681J
S 5001	Push Switch		CSG1111	R 4124			RS1/16S331J
S 5002	Push Switch		CSG1111	R 4125			RS1/16S75R0D
S 5003	Push Switch		CSG1111	R 4128			RS1/16S331J
				R 4129			RS1/16S391J
VR5001	Semi-fixed 15K $\Omega$ (B)		CCP1424				
FU4831	Fuse 630mA		CEK1252	R 4130			RS1/16S391J
FU5001	Fuse 1.25A		CEK1255	R 4131			RS1/16S153J
				R 4132			RS1/16S104J
				R 4133			RS1/16S681J
				R 4134			RS1/16S331J

**RESISTORS**

R 4001		RS1/16S101J					
R 4002		RS1/16S470J	R 4135				RS1/16S75R0D
R 4003		RS1/16S101J	R 4138				RS1/16S331J
R 4004		RS1/16S101J	R 4139				RS1/16S391J
R 4005		RS1/16S473J	R 4140				RS1/16S391J
			R 4141				RS1/16S105J
R 4006		RS1/16S392J					
R 4009		RS1/16S152J	R 4142				RS1/16S224J
R 4010		RS1/16S331J	R 4145				RS1/16S1501D
R 4012		RS1/16SS105J	R 4146				RS1/16S5602F
R 4013		RS1/16S391J	R 4147				RS1/16S3302F
			R 4148				RS1/16S1002F
R 4014		RAB4C101J					
R 4015		RS1/16S473J	R 4150				RS1/16S183J
R 4018		RS1/16S101J	R 4152				RS1/16S3901F
R 4022		RS1/16S101J	R 4153				RS1/16S1501F
R 4023		RS1/16S0R0J	R 4154				RS1/16S102J
			R 4155				RS1/16S102J
R 4024		RS1/16S333J					
R 4025		RS1/16S101J	R 4156				RS1/16S1501F
R 4026		RS1/16S101J	R 4157				RS1/16S3901F
R 4027		RS1/16S101J	R 4160				RS1/16S1002F
R 4030		RS1/16S101J	R 4161				RS1/16S1802F
			R 4162				RS1/16S102J
R 4031		RS1/16S101J					
R 4061		RS1/16S473J	R 4163				RS1/16S3901F
R 4062		RS1/16S152J	R 4164				RS1/16S1501F
R 4063		RS1/16S0R0J	R 4165				RS1/16S102J
R 4064		RS1/16S0R0J	R 4166				RS1/16S272J
			R 4167				RS1/16S102J
R 4084		RS1/16S473J					
R 4085		RS1/16S473J	R 4168				RS1/16S272J
R 4086		RS1/16S473J	R 4169				RS1/16S102J
R 4087		RS1/16S104J	R 4170				RS1/16S272J
R 4088		RS1/16S104J	R 4171				RS1/16S331J
			R 4172				RS1/16S103J
R 4089		RS1/16S104J					
R 4101		RS1/16S8201F	R 4174				RS1/16S331J
R 4102		RS1/16S5602F	R 4175				RS1/16S103J
R 4103		RS1/16S681J	R 4177				RS1/16S331J
R 4104		RS1/16S331J	R 4178				RS1/16S103J
			R 4180				RS1/16S243J
R 4105		RS1/16S104J					
R 4107		RS1/16S6801D	R 4181				RS1/16S3002F
R 4108		RS1/16S331J	R 4182				RS1/16S223J
R 4109		RS1/16S391J	R 4183				RS1/16S1203F
R 4110		RS1/16S391J	R 4184				RS1/16S1602F
			R 4185				RS1/16S1502F
R 4111		RS1/16S153J					
R 4112		RS1/16S104J	R 4186				RS1/16S1002F
R 4113		RS1/16S681J	R 4187				RS1/16S1002F
R 4114		RS1/16S331J	R 4188				RS1/16S101J
R 4115		RS1/16S75R0D	R 4189				RS1/16S153J
			R 4190				RS1/16S100J
R 4118		RS1/16S331J					
R 4119		RS1/16S391J	R 4191				RS1/16S153J
			R 4192				RS1/16S100J



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

A R 4193 RS1/16S0R0J  
 R 4194 RS1/16S0R0J  
 R 4208 RS1/16S101J  
  
 R 4209 RS1/16S101J  
 R 4211 RS1/16S681J  
 R 4311 RS1/16S275J  
 R 4312 RS1/16S105J  
 R 4313 RS1/16SS393J

R 4670 RS1/16S1502D  
 R 4681 RS1/16S105J  
 R 4682 RS1/16S105J  
  
 R 4683 RS1/16S102J  
 R 4684 RS1/16S102J  
 R 4701 RS1/16S101J  
 R 4702 RS1/16S101J  
 R 4703 RS1/16S101J

R 4314 RS1/16S103J  
 R 4315 RS1/16SS121J  
 R 4321 RS1/16SS121J  
 R 4322 RS1/16SS121J  
 R 4323 RS1/16SS121J

R 4704 RS1/16S101J  
 R 4705 RS1/16S471J  
 R 4707 RS1/16S0R0J  
 R 4709 RS1/16SS472J  
 R 4711 RS1/16S471J

B R 4324 RS1/16SS121J  
 R 4359 RS1/16SS181J  
 R 4360 RS1/16SS121J  
 R 4361 RS1/16SS121J  
 R 4362 RS1/16SS121J

R 4741 RS1/16S0R0J  
 R 4742 RS1/16S0R0J  
 R 4743 RS1/16S473J  
 R 4802 RS1/16S0R0J  
 R 4803 RS1/16S333J

R 4363 RS1/16SS181J  
 R 4364 RS1/16SS121J  
 R 4365 RS1/16SS121J  
 R 4366 RS1/16SS121J  
 R 4453 RS1/16S101J

R 4804 RS1/16S0R0J  
 R 4805 RS1/16S0R0J  
 R 4806 RS1/16S0R0J  
 R 4831 RS1/16S153J  
 R 4832 RS1/16S472J

C R 4454 RS1/16S101J  
 R 4601 RS1/16S473J  
 R 4602 RS1/16S473J  
 R 4603 RS1/16S473J  
 R 4604 RS1/16SS471J

R 4833 RS1/16S472J  
 R 4834 RS1/16S103J  
 R 4835 RS1/16S121J  
 R 4851 RS1/16S5102D  
 R 4852 RS1/16S2202D

R 4605 RS1/16SS471J  
 R 4606 RAB4CQ471J  
 R 4607 RAB4CQ471J  
 R 4608 RS1/16SS471J  
 R 4610 RS1/16SS471J

R 4853 RS1/16S272J  
 R 4854 RS1/16S100J  
 R 4855 RS1/16S102J  
 R 4858 RS1/16S560J  
 R 4859 RS1/16S100J

D R 4611 RS1/16S470J  
 R 4612 RS1/16S470J  
 R 4613 RS1/16S272J  
 R 4614 RS1/16S272J  
 R 4615 RS1/16SS471J

R 4861 RS1/16S104J  
 R 4862 RS1/16S102J  
 R 4863 RS1/16S1102F  
 R 4864 RS1/16S2001F  
 R 4865 RS1/16S3302F

R 4616 RS1/16S104J  
 R 4617 RS1/16S473J  
 R 4618 RS1/16SS471J  
 R 4619 RS1/16S473J  
 R 4621 RS1/16S223J

R 4866 RS1/16S2401F  
 R 4867 RS1/16S5602F  
 R 4868 RS1/16S2703F  
 R 4869 RS1/16S5602F  
 R 4901 RS1/16S103J

E R 4622 RS1/16S473J  
 R 4623 RS1/16S0R0J  
 R 4624 RAB4CQ473J  
 R 4625 RS1/16S103J  
 R 4626 RS1/16S473J

R 4902 RS1/16S103J  
 R 4903 RS1/16S392J  
 R 4904 RS1/16S912J  
 R 4905 RS1/16S2003F  
 R 4906 RS1/16S153J

R 4627 RAB4CQ472J  
 R 4628 RS1/16S0R0J  
 R 4629 RS1/16S473J  
 R 4630 RS1/16S0R0J  
 R 4631 RAB4CQ471J

R 4907 RS1/16S153J  
 R 5001 RAB4CQ181J  
 R 5002 RAB4CQ151J  
 R 5003 RS1/16S103J  
 R 5004 RAB4CQ151J

R 4642 RS1/16S473J  
 R 4646 RS1/16S473J  
 R 4650 RS1/16SS471J  
 R 4651 RAB4CQ471J  
 R 4652 RS1/16SS471J

R 5005 RS1/16S104J  
 R 5006 RS1/16S102J  
 R 5007 RS1/16S473J  
 R 5008 RS1/16S473J  
 R 5009 RS1/16S105J

R 4655 RS1/16S102J  
 R 4657 RS1/16SS0R0J

R 5010 RS1/16S333J  
 R 5011 RS1/16S513J



<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>
R 5014		RS1/16S102J	C 4040		CKSSYF104Z16
R 5015		RS1/16S105J	C 4042		CCSRCH181J50
R 5016		RS1/16S563J	C 4045		CCSRCH9R0D50
			C 4046		CCSRCH9R0D50
R 5017		RS1/16S103J			
R 5018		RS1/16S103J	C 4047		CKSSYF104Z16
R 5019		RS1/16S511J	C 4048		CKSSYF104Z16
R 5020		RS1/16S821J	C 4049		CKSSYF104Z16
R 5022		RS1/16SS181J	C 4050		CKSRYB105K6R3
			C 4051		CKSSYF104Z16
R 5023		RS1/16SS0R0J			
R 5024	(X1/EW)	RS1/16SS151J	C 4052		CKSSYF104Z16
R 5030	(N1/UC)	RS1/16S470J	C 4054		CCSRCH101J50
R 5031		RS1/16S332J	C 4055		CKSRYF104Z25
R 5101		RS1/16S101J	C 4061		CKSRYF104Z25
			C 4062		CCSRCH390J50
R 5102		RS1/16S103J			
R 5103		RS1/16S471J	C 4071		CSZS100M10
R 5104		RS1/16S101J	C 4074		CKSRYB105K6R3
R 5105		RS1/16S104J	C 4075		CKSRYB105K6R3
R 5106		RS1/16S103J	C 4101		CKSYF106Z10
			C 4102		CCSRCH470J50
R 5107		RS1/16S473J			
R 5108		RS1/16S101J	C 4103		CCSRCH470J50
R 5109		RS1/16S824J	C 4104		CKSRYF104Z25
			C 4105		CSZS100M10
			C 4107		CKSYF106Z10
			C 4111		CKSYF106Z10
<b>CAPACITORS</b>					
C 4001		CKSRYB105K6R3			
C 4002		CKSSYF104Z16	C 4112		CCSRCH470J50
C 4003		CKSSYF104Z16	C 4113		CCSRCH470J50
C 4004		CKSSYF104Z16	C 4114		CKSRYF104Z25
C 4005		CKSSYF104Z16	C 4121		CKSYF106Z10
			C 4122		CCSRCH470J50
C 4006		CKSSYF104Z16			
C 4007		CKSSYF104Z16	C 4123		CCSRCH470J50
C 4008		CKSSYF104Z16	C 4124		CKSRYF104Z25
C 4009		CKSSYF104Z16	C 4131		CKSYF106Z10
C 4010		CKSSYF104Z16	C 4132		CCSRCH470J50
			C 4133		CCSRCH470J50
C 4011		CKSSYF104Z16			
C 4012		CKSSYF104Z16	C 4134		CKSRYF104Z25
C 4013		CKSRYB392K50	C 4140		CKSQYB225K10
C 4015		CKSRYB105K6R3	C 4141		CKSRYB105K6R3
C 4016		CKSSYF104Z16	C 4142		CKSRYF104Z25
			C 4143		CSZS100M10
C 4017		CKSSYF104Z16			
C 4018		CKSRYB104K16	C 4144		CKSRYF104Z25
C 4019		CKSRYB104K16	C 4145		CKSRYF104Z25
C 4020		CKSRYB104K16	C 4151		CSZSR220M16
C 4021		CKSSYF104Z16	C 4152		CKSRYB103K50
			C 4153		CCSRCH4R0C50
C 4022		CKSSYF104Z16			
C 4023		CKSSYF104Z16	C 4154		CCSRCH4R0C50
C 4024		CKSSYF104Z16	C 4155		CCSRCH4R0C50
C 4025		CKSSYF104Z16	C 4156		CKSRYF104Z25
C 4026		CKSSYF104Z16	C 4160		CKSRYF104Z25
			C 4161		CKSRYF104Z25
C 4027		CKSSYF104Z16			
C 4028		CKSSYF104Z16	C 4162		CKSRYF104Z25
C 4029		CKSSYF104Z16	C 4163		CKSRYB105K6R3
C 4030		CKSRYB104K16	C 4164		CKSRYB105K6R3
C 4031		CKSSYF104Z16	C 4165		CKSRYB105K6R3
			C 4166		CKSRYF104Z25
C 4032		CKSSYF104Z16			
C 4033		CKSSYF104Z16	C 4167		CKSRYF104Z25
C 4034		CKSSYF104Z16	C 4168		CKSRYF104Z25
C 4035		CKSRYB103K50	C 4169		CKSRYB103K50
C 4036		CCSRCH4R0C50	C 4170		CSZSR220M16
			C 4171		CSZSR220M16
C 4037		CKSSYF104Z16			
			C 4181		CSZSR220M16



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

C 4182 CKSRYF104Z25  
 C 4183 CSZSR4R7M25  
 C 4184 CKSRYF104Z25  
 C 4186 CKSRYF104Z25

C 4859 CKSRYB224K16  
 C 4860 CKSYF106Z10  
 C 4861 CKSYF106Z10  
 C 4862 CCSRCH100D50

C 4188 CKSRYF104Z25  
 C 4225 CKSRYF104Z25  
 C 4311 CKSRYB224K16  
 C 4312 CKSRYB104K16  
 C 4313 CKSRYB104K16

C 4863 CKSRYB683K16  
 C 4864 CKSRYB104K16  
 C 4865 CKSRYB471K50  
 C 4866 CKSRYB224K16  
 C 4867 CKSRYB104K16

C 4314 CKSRYB104K16  
 C 4315 CKSRYB104K16  
 C 4321 CKSRYB104K16  
 C 4322 CKSRYB104K16  
 C 4375 CKSRYB104K16

C 4868 CKSRYB104K16  
 C 4869 CKSRYB104K16  
 C 4870 CKSRYB224K16  
 C 4871 CKSRYB224K16  
 C 4872 CKSRYB104K16

C 4376 CKSRYB104K16  
 C 4377 CKSRYB104K16  
 C 4378 CKSRYB104K16  
 C 4601 CSZSR330M10  
 C 4602 CKSRYF104Z25

C 4873 CKSQYB105K16  
 C 4874 CKSQYB474K25  
 C 4875 CKSRYB104K16  
 C 4876 CKSQYB474K25  
 C 4877 CKSQYB105K16

C 4603 CKSRYF104Z25  
 C 4605 CKSRYF104Z25  
 C 4621 CKSRYB103K50  
 C 4631 CCG1138  
 C 4632 CCG1138

C 4878 CKSRYB104K16  
 C 4879 CCH1586  
 C 4881 CKSRYF104Z25  
 C 4882 CKSRYF104Z25  
 C 4883 CKSRYF104Z25

C 4651 CKSRYF104Z25  
 C 4670 CKSSYF104Z16  
 C 4681 CKSRYB102K50  
 C 4682 CKSRYB102K50  
 C 4683 CKSRYB102K50

C 4884 CKSRYB104K16  
 C 4885 CCH1440  
 C 4886 CKSRYF104Z25  
 C 4887 CKSRYF104Z25  
 C 4901 CKSRYF104Z25

C 4684 CKSRYB102K50  
 C 4685 CKSRYB102K50  
 C 4686 CKSRYB102K50  
 C 4687 CKSRYF104Z25  
 C 4701 CSZSR330M10

C 4902 CSZSR220M10  
 C 4903 CFHSQ562J16  
 C 4904 CSZSR330M10  
 C 4905 CKSRYB102K50  
 C 5001 CKSRYB104K16

C 4702 CKSSYF104Z16  
 C 4704 CKSRYF104Z25  
 C 4801 CSZSR4R7M25  
 C 4802 CKSRYF104Z25  
 C 4803 CSZS100M10

C 5002 CKSRYB105K6R3  
 C 5003 CSZSR330M10  
 C 5004 CKSRYB104K16  
 C 5005 CKSRYB104K16  
 C 5006 CKSRYB104K16

C 4804 CKSRYF104Z25  
 C 4805 CSZSR330M10  
 C 4806 CKSRYF104Z25  
 C 4807 CSZSR33M35  
 C 4808 CKSRYF104Z25

C 5007 CKSRYB105K6R3  
 C 5008 CKSQYB335K6R3  
 C 5010 CKSRYB104K16  
 C 5011 CKSRYB332K50  
 C 5012 CKSRYB105K6R3

C 4809 CKSSYF104Z16  
 C 4810 CKSSYF104Z16  
 C 4831 CKSSYF104Z16  
 C 4832 CKSRYF104Z25  
 C 4835 CKSRYF104Z25

C 5013 CKSRYB152K50  
 C 5014 CKSRYB104K16  
 C 5015 CKSRYB473K50  
 C 5016 CKSRYB103K50  
 C 5017 CFHSQ221J50

C 4836 CKSRYF104Z25  
 C 4841 CKSRYB105K6R3  
 C 4843 CCH1440  
 C 4844 CKSRYF104Z25  
 C 4851 CKSRYB104K16

C 5018 CKSRYB473K50  
 C 5019 CCG1138  
 C 5020 CCG1138  
 C 5021 CKSQYB105K16  
 C 5022 CKSQYB105K16

C 4852 CCH1440  
 C 4853 CKSRYB104K16  
 C 4855 CCG1138  
 C 4856 CCSRCH102J50  
 C 4857 CCSRCH681J50

C 5023 CCG1140  
 C 5024 CKSRYB223K50  
 C 5101 CKSRYB104K16  
 C 5102 CKSRYB104K16

C 4858 CCG1138



**Circuit Symbol and No.**      **Part No.**

**Keyboard Unit**

**Consists of**

**Keyboard PCB**

**Panel PCB**

**BC**

**Unit Number:CWM9132(AVIC-X1/EW)**

**Unit Number:CWM9133(AVIC-N1/UC)**

**Unit Name:Keyboard Unit**

### MISCELLANEOUS

IC 5501	IC	SBX3050-01
D 5501	Diode(X1/EW)	DAN202U
D 5504	LED	CL-190UB2-X
D 5505	LED	CL-190UB2-X
D 5509	LED	CL-190UB2-X
D 5510	LED	CL-190UB2-X
D 5512	LED(X1/EW)	CL-195SR-CD
D 5513	LED	CL-195PG-CD
D 5514	LED(X1/EW)	CL-195SR-CD
D 5515	LED	CL-195PG-CD
D 5516	LED	CL-195PG-CD
D 5517	LED(X1/EW)	CL-195SR-CD
D 5518	LED	CL-195PG-CD
D 5519	LED(X1/EW)	CL-195SR-CD
D 5520	LED(X1/EW)	CL-195SR-CD
D 5521	LED	CL-195PG-CD
D 5522	LED	CL-195PG-CD
D 5524	LED	CL-190UB2-X
D 5526	LED	CL-190UB2-X
D 5527	Diode	UDZS6R8(B)
D 5529	LED	CL-190UB2-X
D 5530	LED	CL-190UB2-X
D 5531	LED	CL-195SR-CD
D 5534	LED	CL-195PG-CD
D 5536	Diode(X1/EW)	DAN202U
D 5537	LED	CL-190UB2-X
D 5538	LED(X1/EW)	CL-195SR-CD
D 5540	LED	CL-190UB2-X
D 5901	LED	SML-010VT
S 5501	Push Switch	CSG1111
S 5502	Push Switch	CSG1111
S 5503	Push Switch	CSG1111
S 5504	Push Switch	CSG1111
S 5505	Push Switch	CSG1111
S 5506	Push Switch	CSG1111
S 5507	Push Switch	CSG1111
S 5508	Push Switch	CSG1111
S 5509	Push Switch	CSG1111
S 5510	Encoder(VOLUME)	CSD1106
S 5511	Switch(SELECT)	CSX1075
S 5901	Push Switch	CSG1111

### RESISTORS

R 5501	RS1/16SS121J
R 5502	RS1/16S202J
R 5503	RS1/16S392J
R 5504	RS1/16S123J

<b>Circuit Symbol and No.</b>	<b>Part No.</b>
R 5505	RS1/16S122J
R 5506	RS1/16S202J
R 5507	RS1/16S122J
R 5508	RS1/16S151J
R 5509	RS1/16S151J
R 5510 (X1/EW)	RS1/16S181J
R 5511	RS1/16SS121J
R 5512	RS1/16SS121J
R 5513	RS1/16S202J
R 5514	RS1/16S392J
R 5515	RS1/16S123J
R 5516	RS1/16S102J
R 5517	RS1/16S151J
R 5518	RS1/16S820J
R 5519	RS1/16SS121J
R 5520	RS1/16S151J
R 5521	RS1/16S151J
R 5522	RS1/16SS121J
R 5524	RS1/16SS121J
R 5525	RS1/16S472J
R 5526 (X1/EW)	RS1/16S0R0J
R 5527 (X1/EW)	RS1/16S181J
R 5528 (X1/EW)	RS1/16S181J
R 5529	RS1/16S181J
R 5530	RS1/16SS121J
R 5531	RS1/16S151J
R 5532	RS1/16SS121J
R 5533 (X1/EW)	RS1/16S181J
R 5534	RS1/16SS121J
R 5535	RS1/16S470J
R 5536	RS1/16SS121J
R 5537 (X1/EW)	RS1/16S181J
R 5538	RS1/16SS121J
R 5539 (X1/EW)	RS1/16S181J
R 5540	RS1/16SS121J
R 5541	RS1/16SS121J
R 5542 (X1/EW)	RS1/16S181J
R 5543	RS1/16SS121J
R 5544	RS1/16SS0R0J
R 5545	RS1/16S0R0J
R 5546	RS1/16S0R0J
R 5547	RS1/16S0R0J
R 5548 (X1/EW)	RS1/16S0R0J
R 5549	RS1/16S122J
R 5550	RS1/16S392J
R 5551	RS1/16S0R0J
R 5558	RS1/16S121J
R 5561	RS1/16S121J
R 5563	RS1/16S101J
R 5565	RS1/16S121J
R 5566	RS1/16SS151J
R 5568	RS1/16SS151J
R 5573	RS1/16S151J
R 5574 (X1/EW)	RS1/16S181J
R 5575	RS1/16S151J
R 5585	RS1/16S181J
R 5587	RS1/16S151J
R 5588	RS1/16S151J
R 5589	RS1/16S151J
R 5590	RS1/16SS151J



**Circuit Symbol and No.****Part No.**

R 5592	(N1/UC)	RS1/16S150J
R 5593	(N1/UC)	RS1/16S270J
R 5596		RS1/16S121J
R 5597		RS1/16S820J
R 5598		RS1/16S121J
R 5599		RS1/16SS121J
R 5904		RS1/16S151J

**CAPACITORS**

C 5509	CSZSQ100M6R3
C 5516	CKSRYB103K50
C 5520	CKSYB106K6R3

**D****Unit Number: CWX2941****Unit Name: DVD Core Unit(MS3)****MISCELLANEOUS**

IC 1101	IC	AN8703FH
IC 1201	IC	BA5985FM
IC 1202	IC	AN8471SAT1
IC 1301	IC	MNZS26EDCUB
IC 1401	IC	TC74LCX245FT
IC 1402	IC	TC7SH04FU
IC 1403	IC	TC74LCX244FT
IC 1405	IC	TC74LCX244FT
IC 1501	IC	K4S641632F-TC75
IC 1502	IC	TC74VCX74FT
IC 1503	IC	MN677531KAUB
IC 1504	IC	TC74VCX74FT
IC 1505	IC	TC7PA04FU
IC 1507	IC	SM8707FV
IC 1602	IC	NJM2100M
IC 1604	IC	NJM2100V
IC 1605	IC	PCM1742KE
IC 1701	IC	PE5395A
IC 1702	IC	M5M5V216ATP-70HI
IC 1705	IC	PD6474A
IC 1706	IC	TC7SH08FU
Q 1101	Transistor	2SB1260
Q 1102	Transistor	2SB1260
Q 1103	Transistor	UN2211
Q 1104	Transistor	2SB709A
Q 1105	Transistor	2SD601A
Q 1201	Transistor	DTC124EU
Q 1501	Transistor	2SA1037K
D 1101	Diode	1SS355
D 1102	Diode	1SS355
D 1301	Diode	UDZ2R7(B)
D 1302	Chip LED	CL205IRXTU
L 1301	Inductor	CTF1409
L 1302	Inductor	CTF1394
L 1303	Inductor	CTF1395
L 1305	Inductor	CTF1409
L 1504	Inductor	CTF1394
L 1505	Inductor	CTF1409
L 1506	Inductor	CTF1473
L 1507	Inductor	CTF1473

**Circuit Symbol and No.****Part No.**

L 1508	Inductor	CTF1473
L 1509	Inductor	CTF1399
L 1510	Inductor	CTF1409
L 1518	Inductor	CTF1385
L 1520	Inductor	CTF1399
L 1522	Inductor	CTF1395
L 1605	Inductor	CTF1379
L 1701	Inductor	CTF1395
L 1702	Inductor	CTF1409
L 1703	Inductor	CTF1473
L 1704	Inductor	CTF1473
X 1501	Radiator 27MHz	CSS1609
X 1701	Ceramic Resonator 4.97MHz	CSS1575
VR1502	Semi-Fixed 2.2kΩ(B)	CCP1444

**RESISTORS**

R 1101	RS1/16SS101J
R 1102	RS1/16SS3R9J
R 1103	RS1/16SS3R9J
R 1104	RS1/16SS3R9J
R 1105	RS1/16SS3R9J
R 1106	RS1/16SS330J
R 1107	RS1/16SS3R9J
R 1108	RS1/16SS3R9J
R 1109	RS1/16SS3R9J
R 1110	RS1/16SS3R9J
R 1111	RS1/16SS272J
R 1112	RS1/16SS472J
R 1113	RS1/16SS102J
R 1124	RS1/16SS273J
R 1125	RS1/16SS273J
R 1126	RS1/16SS224J
R 1130	RS1/16SS0R0J
R 1131	RS1/16SS0R0J
R 1132	RS1/16SS0R0J
R 1133	RS1/16S2402D
R 1134	RS1/16S1002D
R 1135	RS1/16S2702D
R 1140	RS1/16SS105J
R 1141	RS1/16SS105J
R 1142	RS1/16SS105J
R 1151	RS1/16SS103J
R 1152	RS1/16SS103J
R 1201	RS1/16SS221J
R 1202	RS1/16SS393J
R 1203	RS1/16SS303J
R 1205	RS1/16SS0R0J
R 1206	RS1/16SS102J
R 1209	RS1/16SS221J
R 1210	RS1/16SS393J
R 1211	RS1/16SS393J
R 1212	RS1/16SS393J
R 1213	RS1/16SS393J
R 1214	RS1/16SS221J
R 1215	RS1/16SS1R0J
R 1216	RS1/16SS1R0J
R 1218	RS1/16SS221J
R 1219	RS1/16SS221J
R 1220	RS1/16SS221J
R 1221	RS1/16SS822J



<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>	
R 1222	RS1/16SS822J	R 1408	RS1/16SS103J	
R 1223	RS1/16SS822J	R 1409	RS1/16SS820J	A
R 1224	RS1/16SS563J	R 1410	RS1/16SS820J	
R 1225	RS1/16SS243J	R 1411	RAB4CQ0R0J	
R 1226	RS1/16SS473J	R 1412	RS1/16SS100J	
R 1227	RS1/16SS473J	R 1413	RS1/16SS820J	
R 1228	RS1/16SS1R0J	R 1414	RAB4CQ820J	
R 1229	RS1/16SS1R0J	R 1415	RS1/16SS103J	
R 1230	RS1/16SS1R0J	R 1418	RS1/16SS221J	
R 1232	RS1/16SS822J	R 1421	RS1/16SS221J	
R 1233	RS1/16SS243J	R 1423	RS1/16SS221J	
R 1234	RS1/16S391J	R 1424	RS1/16SS221J	
R 1235	RS1/16S471J	R 1425	RAB4CQ221J	B
R 1236	RS1/16SS513J	R 1426	RAB4CQ221J	
R 1237	RS1/16SS513J	R 1501	RS1/16SS220J	
R 1301	RS1/16SS222J	R 1502	RAB4CQ220J	
R 1321	RS1/16SS104J	R 1503	RS1/16S101J	
R 1322	RS1/16SS0R0J	R 1504	RAB4CQ220J	
R 1323	RS1/16SS221J	R 1505	RS1/16S101J	
R 1324	RS1/16SS221J	R 1508	RAB4CQ220J	
R 1334	RS1/16SS221J	R 1512	RAB4CQ220J	
R 1336	RS1/16SS103J	R 1518	RAB4CQ220J	
R 1337	RS1/16SS103J	R 1522	RAB4CQ220J	
R 1338	RS1/16SS472J	R 1523	RS1/16S0R0J	C
R 1339	RS1/16SS273J	R 1527	RAB4CQ220J	
R 1340	RS1/16SS472J	R 1533	RS1/16SS201J	
R 1341	RS1/16SS273J	R 1534	RAB4CQ220J	
R 1342	RS1/16SS273J	R 1538	RAB4CQ220J	
R 1344	RS1/16SS273J	R 1539	RS1/16SS221J	
R 1349	RS1/16SS562J	R 1542	RS1/16SS103J	
R 1350	RS1/16SS242J	R 1543	RS1/16SS680J	
R 1352	RS1/16S2702D	R 1544	RS1/16SS0R0J	
R 1353	RS1/16SS102J	R 1545	RS1/16SS0R0J	
R 1360	RS1/16SS153J	R 1549	RS1/16SS0R0J	
R 1361	RS1/16SS105J	R 1550	RS1/16SS0R0J	D
R 1362	RS1/16SS473J	R 1551	RS1/16SS0R0J	
R 1363	RS1/16SS101J	R 1552	RS1/16SS471J	
R 1364	RS1/16SS123J	R 1553	RS1/16S68R0D	
R 1365	RS1/16SS101J	R 1554	RS1/16SS471J	
R 1367	RS1/16SS473J	R 1555	RS1/16SS0R0J	
R 1369	RS1/16SS473J	R 1556	RS1/16SS750J	
R 1375	RS1/16SS103J	R 1557	RS1/16SS0R0J	
R 1376	RS1/16SS103J	R 1558	RS1/16SS622J	
R 1377	RS1/16SS103J	R 1559	RAB4CQ0R0J	
R 1378	RS1/16SS103J	R 1560	RS1/16SS122J	
R 1379	RS1/16SS103J	R 1561	RS1/16SS162J	E
R 1380	RS1/16SS103J	R 1562	RS1/16SS0R0J	
R 1383	RS1/16SS103J	R 1563	RS1/16SS4R7J	
R 1391	RS1/16SS103J	R 1564	RAB4CQ0R0J	
R 1392	RS1/16SS103J	R 1565	RS1/16S101J	
R 1393	RS1/16SS103J	R 1566	RS1/16S101J	
R 1394	RS1/16SS471J	R 1567	RAB4CQ0R0J	
R 1395	RS1/16SS0R0J	R 1568	RS1/16S101J	
R 1396	RS1/16SS0R0J	R 1569	RS1/16S101J	
R 1401	RS1/16SS101J	R 1570	RS1/16S101J	
R 1403	RAB4CQ220J	R 1571	RS1/16S220J	F
R 1404	RAB4CQ220J	R 1572	RAB4CQ0R0J	
R 1405	RAB4CQ220J	R 1573	RS1/16SS473J	
R 1406	RAB4CQ220J	R 1574	RAB4CQ0R0J	
R 1407	RS1/16SS220J	R 1575	RAB4CQ0R0J	



**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

R 1576 RAB4CQ0R0J

R 1731

RS1/16SS104J

R 1577 RAB4CQ0R0J  
 R 1578 RS1/16SS472J  
 R 1579 RS1/16SS101J  
 R 1587 RS1/16SS101J  
 R 1595 RS1/16SS472J

R 1732  
 R 1733  
 R 1734  
 R 1735  
 R 1736

RS1/16SS0R0J  
 RS1/16SS104J  
 RS1/16SS221J  
 RS1/16SS104J  
 RS1/16SS104J

R 1596 RS1/16SS472J  
 R 1597 RS1/16SS104J  
 R 1598 RS1/16SS270J  
 R 1601 RS1/16SS821J  
 R 1602 RS1/16SS821J

R 1737  
 R 1738  
 R 1739  
 R 1740  
 R 1741

RS1/16SS104J  
 RS1/16SS104J  
 RS1/16SS330J  
 RS1/16SS0R0J  
 RS1/16SS0R0J

R 1603 RS1/16SS0R0J  
 R 1604 RS1/16SS0R0J  
 R 1605 RS1/16SS102J  
 R 1606 RS1/16SS102J  
 R 1607 RS1/16SS222J

R 1742  
 R 1746  
 R 1748  
 R 1749  
 R 1750

RS1/16SS473J  
 RS1/16SS104J  
 RS1/16SS104J  
 RS1/16SS103J  
 RS1/16SS473J

R 1608 RS1/16SS222J  
 R 1609 RS1/16SS472J  
 R 1610 RS1/16SS472J  
 R 1611 RS1/16SS472J  
 R 1612 RS1/16SS472J

R 1751  
 R 1752  
 R 1753  
 R 1754  
 R 1756

RS1/16SS103J  
 RS1/16SS104J  
 RS1/16SS104J  
 RS1/16SS104J  
 RS1/16SS104J

R 1613 RS1/16SS103J  
 R 1614 RS1/16SS103J  
 R 1615 RS1/16SS472J  
 R 1616 RS1/16SS472J  
 R 1626 RS1/16SS0R0J

R 1757  
 R 1758  
 R 1759  
 R 1760  
 R 1761

RS1/16SS472J  
 RS1/16SS104J  
 RS1/16SS104J  
 RS1/16S1002D  
 RS1/16SS105J

R 1627 RS1/16SS0R0J  
 R 1628 RS1/16SS0R0J  
 R 1637 RS1/16SS104J  
 R 1638 RS1/16SS104J  
 R 1642 RS1/16SS221J

R 1762  
 R 1763  
 R 1764  
 R 1765  
 R 1767

RS1/16SS473J  
 RS1/16SS104J  
 RS1/16SS104J  
 RS1/16SS104J  
 RS1/16SS104J

R 1643 RS1/16SS221J  
 R 1645 RS1/16SS0R0J  
 R 1647 RS1/16SS221J  
 R 1648 RS1/16SS221J  
 R 1649 RS1/16SS101J

R 1768  
 R 1769  
 R 1770  
 R 1771  
 R 1773

RS1/16SS473J  
 RS1/16SS104J  
 RS1/16SS473J  
 RS1/16SS473J  
 RS1/16SS103J

R 1650 RS1/16SS101J  
 R 1651 RS1/16SS101J  
 R 1653 RS1/16SS473J  
 R 1656 RS1/16SS102J  
 R 1701 RS1/16SS473J

R 1790  
 R 1792  
 R 1794  
 R 1795  
 R 1796

RS1/16SS473J  
 RS1/16SS0R0J  
 RS1/16SS222J  
 RS1/16SS104J  
 RS1/16SS473J

R 1704 RS1/16SS473J  
 R 1706 RS1/16SS104J  
 R 1707 RS1/16SS221J  
 R 1708 RS1/16SS221J  
 R 1714 RS1/16SS221J

R 1797  
 R 1798  
 R 1801  
 R 1802  
 R 1803

RS1/16SS104J  
 RS1/16SS104J  
 RS1/16SS104J  
 RS1/16SS104J  
 RS1/16SS104J

R 1715 RS1/16SS473J  
 R 1716 RS1/16SS221J  
 R 1717 RS1/16SS104J  
 R 1718 RS1/16SS104J  
 R 1720 RS1/16SS104J

R 1804  
 R 1805

RS1/16SS102J  
 RS1/16SS102J

**CAPACITORS**

R 1721 RS1/16SS104J  
 R 1722 RS1/16SS104J  
 R 1723 RS1/16SS104J  
 R 1724 RS1/16SS222J  
 R 1725 RS1/16SS223J

C 1101  
 C 1102  
 C 1103  
 C 1104  
 C 1105

CSZSC470M16  
 CSZSR470M6R3  
 CKSSYB104K10  
 CKSSYB103K16  
 CSZSR101M6R3

R 1726 RS1/16SS104J  
 R 1727 RS1/16SS104J  
 R 1728 RS1/16SS104J  
 R 1730 RS1/16SS221J

C 1106  
 C 1107  
 C 1108  
 C 1109

CKSSYB104K10  
 CKSSYB103K16  
 CKSSYB104K10  
 CKSRYB473K25



<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>	
C 1110	CKSRYB473K25	C 1334	CKSRYB102K50	
C 1111	CKSSYB103K16	C 1335	CKSSYB562K25	A
C 1112	CKSRYB105K10	C 1336	CKSSYB104K10	
C 1113	CKSRYB105K10	C 1337	CKSRYB102K50	
C 1114	CKSSYB103K16	C 1338	CKSRYB102K50	
C 1121	CKSSYB221K50	C 1339	CKSRYB102K50	
C 1122	CKSRYB393K16	C 1340	CKSSYB104K10	
C 1124	CKSSYB221K50	C 1341	CCSSCH101J50	
C 1125	CKSSYB104K10	C 1342	CKSRYB391K50	
C 1126	CKSSYB104K10	C 1343	CKSRYB471K50	
C 1127	CKSSYB104K10	C 1344	CKSRYB331K50	
C 1128	CKSRYB472K50	C 1346	CKSRYB224K10	
C 1129	CKSSYB104K10	C 1347	CKSSYB104K10	B
C 1132	CKSRYB561K50	C 1348	CKSSYB104K10	
C 1133	CKSRYB561K50	C 1349	CKSSYB104K10	
C 1134	CKSRYB273K16	C 1350	CKSSYB104K10	
C 1135	CKSSYB473K10	C 1351	CKSSYB104K10	
C 1136	CKSSYB104K10	C 1352	CKSSYB104K10	
C 1137	CKSSYB104K10	C 1401	CCSSCH181J25	
C 1138	CKSSYB104K10	C 1402	CKSSYB104K10	
C 1139	CKSSYB104K10	C 1403	CKSSYB104K10	
C 1201	CKSSYB104K10	C 1404	CKSSYB104K10	
C 1204	CEV101M16	C 1406	CKSSYB104K10	
C 1205	CKSRYB104K16	C 1501	CKSRYB224K10	C
C 1206	CKSRYB103K50	C 1502	CKSRYB224K10	
C 1207	CKSRYB103K50	C 1503	CKSRYB224K10	
C 1208	CCSSCH5R0C50	C 1504	CKSRYB224K10	
C 1209	CCSSCH470J50	C 1505	CKSRYB224K10	
C 1213	CKSRYB104K25	C 1507	CKSRYB224K10	
C 1214	CKSRYB104K25	C 1508	CKSRYB224K10	
C 1215	CKSSYB104K10	C 1510	CSZSC101M10	
C 1216	CSZSC470M16	C 1513	CKSRYB224K10	
C 1217	CKSRYB104K25	C 1514	CKSRYB224K10	
C 1218	CSZSC470M16	C 1515	CKSRYB224K10	
C 1221	CKSRYB104K25	C 1516	CKSRYB224K10	
C 1301	CKSSYB104K10	C 1517	CKSRYB224K10	D
C 1302	CKSSYB104K10	C 1518	CKSRYB224K10	
C 1303	CKSSYB224K6R3	C 1519	CKSRYB224K10	
C 1304	CKSSYB104K10	C 1520	CKSRYB224K10	
C 1305	CKSSYB224K6R3	C 1521	CKSRYB224K10	
C 1306	CKSSYB471K50	C 1522	CKSRYB224K10	
C 1307	CKSSYB104K10	C 1523	CKSRYB224K10	
C 1308	CKSRYB224K10	C 1524	CKSRYB224K10	
C 1309	CKSSYB104K10	C 1525	CKSSYB104K10	
C 1310	CKSSYB104K10	C 1526	CKSRYB224K10	
C 1311	CKSSYB103K16	C 1527	CKSRYB224K10	E
C 1312	CKSSYB103K16	C 1528	CKSSYB104K10	
C 1313	CKSSYB104K10	C 1529	CKSRYB224K10	
C 1314	CKSRYB224K10	C 1530	CKSRYB224K10	
C 1315	CKSRYB102K50	C 1531	CKSSYB471K50	
C 1316	CKSRYB393K16	C 1532	CKSSYB104K10	
C 1317	CKSSYB104K10	C 1533	CKSSYB104K10	
C 1318	CKSSYB103K16	C 1534	CKSRYB224K10	
C 1319	CKSSYB104K10	C 1535	CKSSYB104K10	
C 1320	CKSSYB103K16	C 1538	CKSSYB104K10	
C 1329	CKSSYB104K10	C 1539	CKSRYB105K10	F
C 1330	CKSRYB183K25	C 1540	CKSRYB105K10	
C 1331	CCSSCH470J50	C 1542	CKSSYB104K10	
C 1332	CKSRYB224K10	C 1543	CSZS4R7M16	
C 1333	CKSRYB224K10	C 1544	CKSSYB104K10	



**Circuit Symbol and No.****Part No.**

A	C 1547	CSZSR330M10
	C 1548	CKSSYB104K10
	C 1549	CKSSYB104K10
	C 1550	CKSSYB104K10
	C 1551	CKSSYB104K10
	C 1552	CKSSYB104K10
B	C 1554	CKSSYB104K10
	C 1555	CKSSYB104K10
	C 1556	CKSSYB104K10
	C 1557	CKSSYB104K10
	C 1558	CKSSYB104K10
	C 1559	CKSSYB104K10
C	C 1560	CKSSYB104K10
	C 1562	CKSSYB104K10
	C 1563	CKSSYB104K10
	C 1564	CKSSYB104K10
	C 1566	CCSSCH7R0D50
	C 1567	CCSSCH7R0D50
D	C 1605	CKSSYB471K50
	C 1606	CKSSYB471K50
	C 1609	CKSRYB104K16
	C 1610	CKSRYB224K10
	C 1611	CSZSR100M16
	C 1612	CKSQYB225K10
E	C 1615	CCSRCH471J50
	C 1616	CCSRCH471J50
	C 1617	CCSRCH471J50
	C 1618	CCSRCH471J50
	C 1619	CKSRYB104K16
	C 1641	CKSRYB104K16
F	C 1650	CKSYB475K16
	C 1651	CKSYB475K16
	C 1676	CSZSR100M10
	C 1701	CKSRYB224K10
	C 1702	CKSRYB224K10
	C 1703	CKSRYB224K10
G	C 1706	CKSRYB224K10
	C 1707	CKSRYB224K10
	C 1708	CKSSYB471K50
	C 1710	CKSRYB224K10
	C 1711	CKSSYB103K16
	C 1712	CKSSYB103K16
H	C 1713	CKSRYB224K10
	C 1716	CKSRYB224K10
	C 1717	CKSSYB104K10
	C 1718	CKSRYB224K10
	C 1719	CKSSYB104K10
	C 1720	CKSRYB224K10
I	C 1721	CKSSYB104K10
	C 1722	CKSRYB224K10
	C 1723	CKSRYB224K10
	C 1724	CKSSYB103K16
	C 1727	CKSSYB224K6R3

**Unit Number:CWX3024****Unit Name:Compound Unit(A)**

Q 1299 Photo-taransistor CPT231SCTD

**Circuit Symbol and No.****Part No.**

S 1201	Spring Switch(12cm)	CSN1069
S 1202	Spring Switch(8cm)	CSN1069
S 1203	Spring Switch(DISC SENS)	CSN1069
S 1204	Spring Switch(DISC SENS)	CSN1070
S 1205	Spring Switch(8cm)	CSN1070
R 1298		RS1/16S0R0J
R 1299		RS1/16S0R0J

**Unit Number:CWX2753****Unit Name:Compound Unit(B)**

S 1206 Switch(CLAMP) CSN1051

**Unit Number:CZW3087****Unit Name:Main Unit****MISCELLANEOUS**

IC 3801	IC	BA00AST
IC 3802	IC	BA6247FP
IC 3803	IC	TA78L05F
IC 3804	IC	TC7S14FU
IC 3805	Photo-interrupter	GP2L24B
Q 3801	Transistor	DTC124EU
Q 3802	Transistor	2SA1037K
Q 3803	Transistor	DTC124EU
D 3801	Diode	UDZS5R6(B)
D 3802	Diode	1SS355
L 3801	Inductor	LCTA150J2520
L 3802	Inductor	LCTA150J2520

**RESISTORS**

R 3801	RS1/16S103J
R 3802	RS1/16S222J
R 3803	RS1/16S471J
R 3804	RS1/16S102J
R 3805	RS1/16S102J
R 3806	RS1/16S102J
R 3807	RS1/16S102J
R 3808	RS1/16S103J
R 3809	RS1/16S222J
R 3810	RS1/16S222J
R 3811	RS1/16S102J
R 3812	RS1/16S102J
R 3813	RS1/16S472J
R 3814	RS1/16S102J
R 3815	RS1/16S0R0J
R 3816	RS1/16S0R0J
R 3817	RS1/16S0R0J
R 3818	RS1/16S473J
R 3819	RS1/16S0R0J
R 3821	RS1/16S473J
R 3822	RS1/16S512J
R 3823	RS1/16S0R0J

**CAPACITORS**



**Circuit Symbol and No.****Part No.**

C 3801	CKSQYB105K16
C 3802	CKSQYB105K16
C 3803	CKSRYB104K16
C 3804	CKSRYB104K16
C 3805	CKSRYB104K16
C 3806	CKSRYB223K50
C 3807	CKSRYB223K50
C 3808	CEVW101M16
C 3809	CEVW101M16
C 3810	CKSRYB104K16
C 3811	CEV100M16
C 3812	CKSRYB104K16
C 3813	CKSRYB102K50
C 3815	CKSQYB104K50
C 3819	CEVW101M16

**N****Unit Number:CZW3088****Unit Name:SW Unit**

S 3831	Switch (ANGLE)	CSN1052
S 3832	Switch (LIFT)	CSN1052

**O****Unit Number:CZW3089****Unit Name:Volume Unit**

VR3841	Rotary (Angle sense)	CCW1025
--------	----------------------	---------

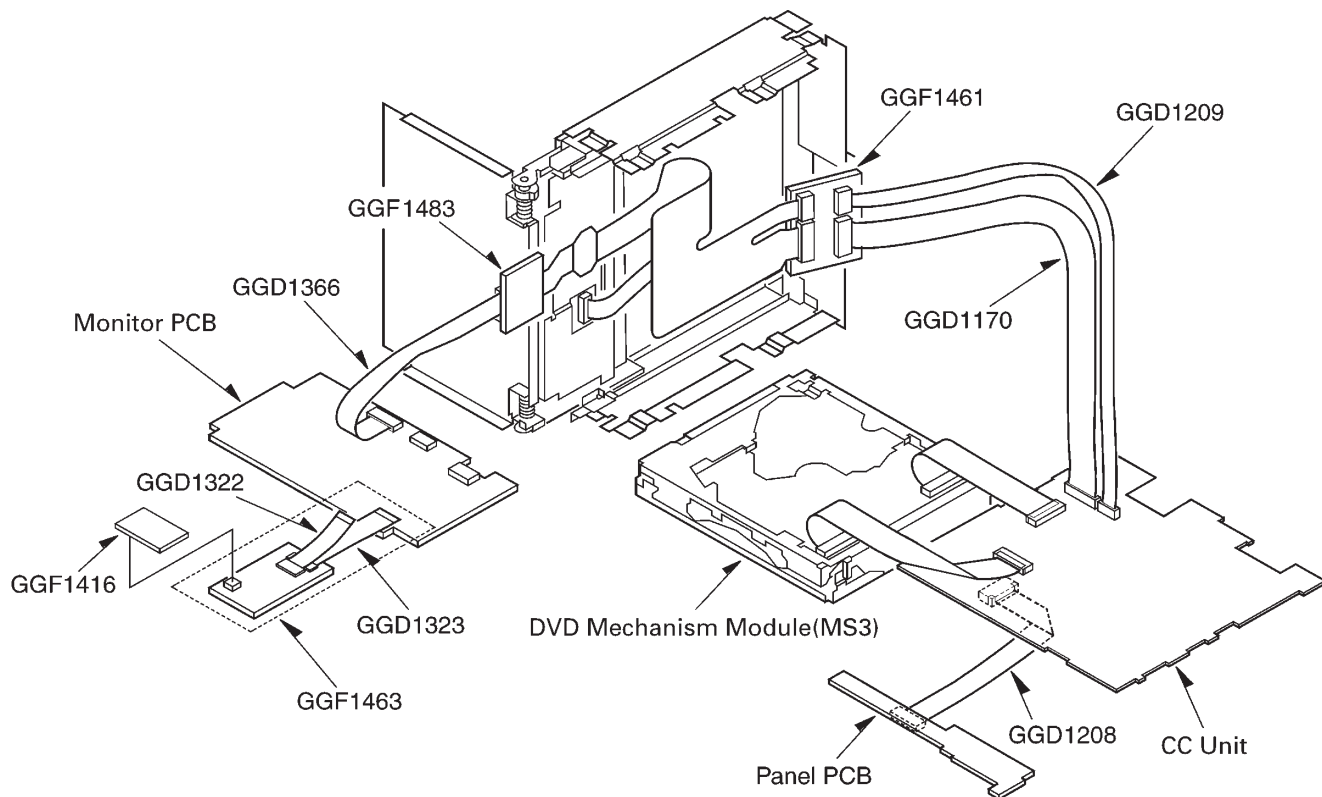
**Miscellaneous Parts List**

	Pickup Unit(Service)(DP5)	CXX1639
M 1	Motor Unit(LOADING)	CXB8687
M 2	Motor Unit(CARRIAGE)	CXB8688
M 3	Motor(SPINDLE)	CXM1280
M 3001	Motor Unit(Position)	CXB9515
M 3002	Motor Unit(Angle)	CXB9516
	Fan Motor	CXM1284
	Fan Motor	CXM1289
	Fan Motor	CXM1293
	LCD Panel	CWX3056
	LCD	CAW1828



## 6. ADJUSTMENT

### 6.1 JIG CONNECTION DIAGRAM



\*1) After connecting the Hideaway Unit, please perform adjustment.

#### ● JIG's List

Function	Name	Jig No.
CC Unit (CN609) <--> Main Unit (CN3801)	PCB	GGF1461
CC Unit (CN609) <--> GGF1461	40P FFC	GGD1170
CC Unit (CN609) <--> GGF1461	20P FFC	GGD1209
CC Unit (CN608) <--> Monitor PCB (CN4002)	PCB	GGF1483
CC Unit (CN2701) <--> Panel PCB (CN5901)	18P FFC	GGD1208
Monitor PCB (CN4002) <--> GGF1483	36P FFC	GGD1366
Monitor Adjustment PCB (*2)	PCB	GGF1416
JIG connector Assy (*2)	PCB and FFC	GGF1463
Monitor PCB ("FOR SERVICE" 14P terminal) <--> GGF1463 (*2)	14P FFC	GGD1323
TEST DISC (Operation check)	CD-ROM or DVD-ROM	GGV1137

\*2) Since this product does not have OSD IC, OSD for adjustment is displayed by using GGF1416 and GGF1463 at the time of monitor adjustment. As you will find lands for 14 pins with 0.8mm pitch at the left top part of the monitor board, directly solder a flexible PCB of GGD1323 for adjustment. As GGD1322 is not used, be careful not to short the terminal.



## 6.2 DVD ADJUSTMENT



### 1) Precautions

This product uses 5V and 3.3V as standard voltages. The electrical potential that is the reference for signals, is not GND, but VREF (approximately 2.2V) and VHALF (approximately 1.65V).

During product adjustments, if the reference voltage is mistakenly taken as GND, and a grounding contact is made, not only would it be impossible to measure the accurate electrical potential, but also the servo motor would malfunction, resulting in the application of a strong impact on the pick up. The following precautionary measures should be strictly adhered to, in order to avoid such problems.

The reference voltage and GND should not be confused when using the minus probe of a measurement device. When an oscilloscope is being used special care should be taken to make sure that the reference voltage is not connected to the probe of ch1 (on the minus side), while the probe of ch2 (on the minus side), is connected to GND. Further, since the body frame of most measurement devices have the same electrical potential as the minus side of the probe, the body frame of the measurement device should be set to floating ground.

If the reference voltage is connected to GND by mistake, turn the regulator OFF immediately, or turn the power OFF.

- Remove the filters and wires used for measurements only after the regulator has been turned OFF.
- After the power supply is turned on, regulator ON the following adjustment and measurement are promptly done.
- Whenever the product is in the test mode, the software will not take any protective action. For this reason, special care should be taken to make sure that no mechanical or electrical shock could be applied to the product when taking measurements in the test mode.
- Whenever the EJECT key is pressed to eject the disk, no other keys, other than the EJECT key, should be pressed until the disk eject action has been completed.
- Press the EJECT key only after the disk has stopped completely.
- If the product hangs up turn the power OFF immediately.
- Laser diodes may be damaged, if the volume switch for the laser power adjustment of the pick up unit, is turned.

Attention)

- Test mode starting procedure  
Please select "MS3 check" (page 230) to start test mode.

(Additional Information)

IP-BUS slave unit (i.e. Multi-CD changer) test mode starting procedure.

- To enter the test mode

While pressing the SOURCE and ANGLE- keys at the same time, reset.

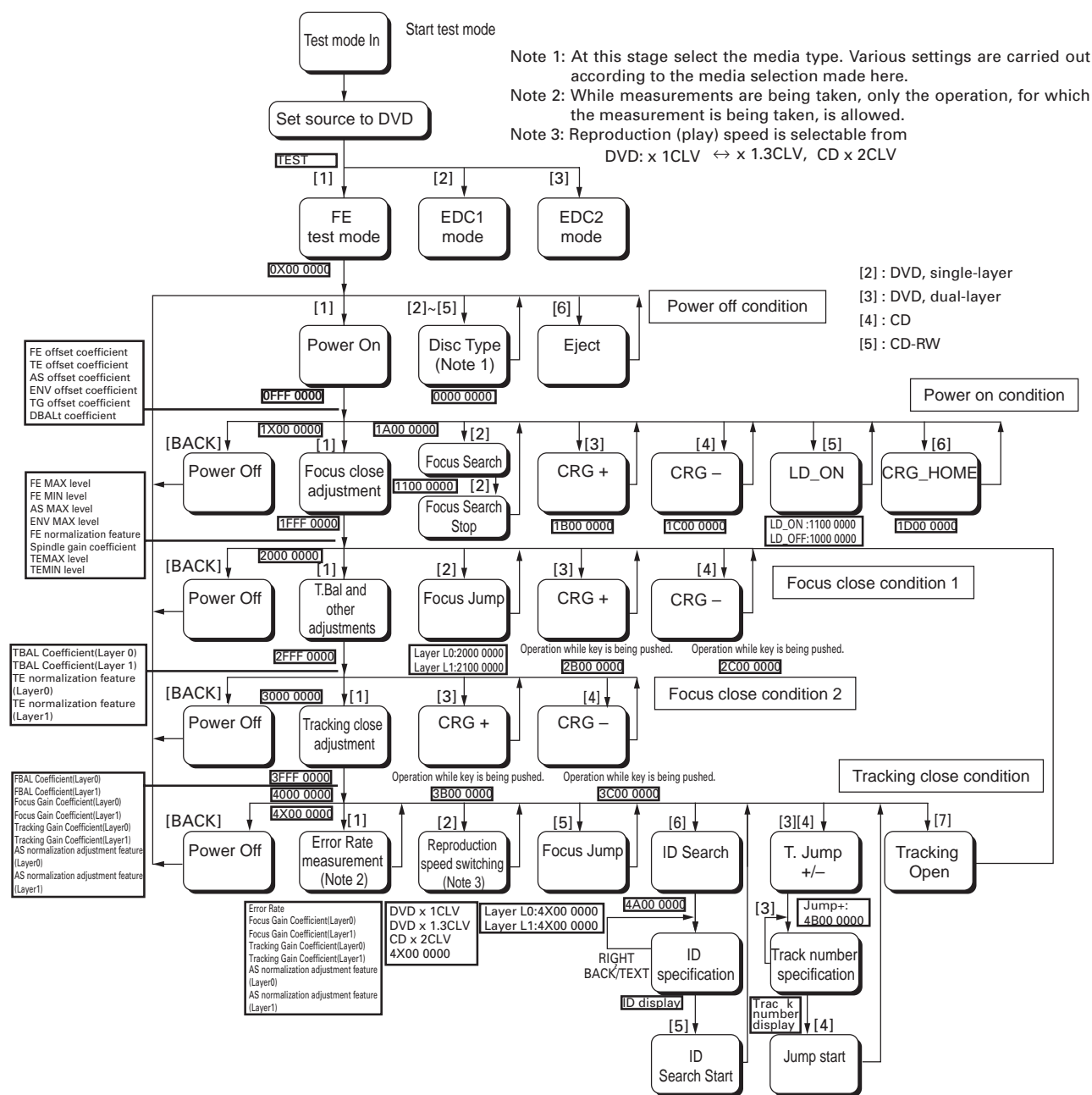
- Key Assign table

AVIC-N1/UC or AVIC-X1/EW	MAIN UNIT KEY (6 keys type)
UP	UP
DOWN	DOWN
LEFT	LEFT
RIGHT	RIGHT
BAND	BAND
REAR	1
WIDE	2
ENT	3
ANGLE-	4
ANGLE+	5
EQ	6

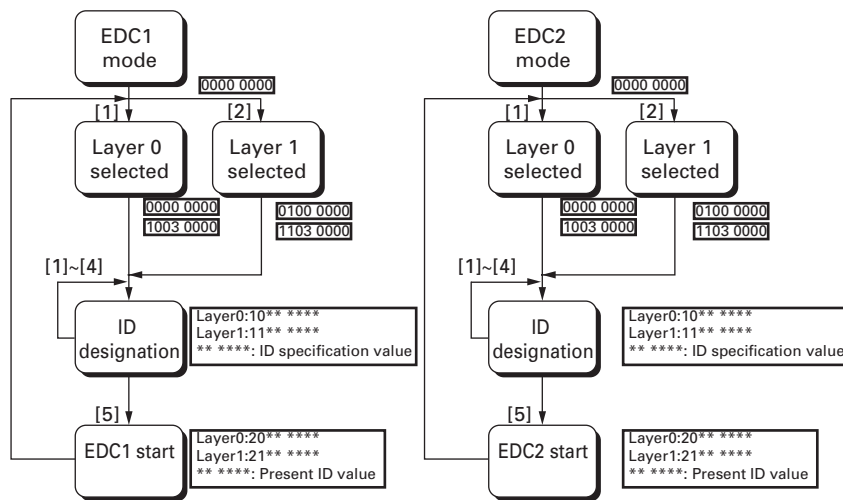
\* Refer to service manual for adjustment of the slave unit.



## ● Front-End test mode flow chart







F-close and F-search cannot be executed, unless LD-ON is set.

[If F-close isn't executed within 9 seconds after LD-ON, it switches to LD-OFF automatically. And even if F-search is executed within 9 seconds after LD-ON, it also switches to LD-OFF.]

The track number designation is selected from the track numbers already prepared for selection. Switching to cyclic operation is made at step REAR, and the decision is finalized (entered) in step BACK/TEXT.

For CD: Tracks 1, 4, 10, 11 and 32.

For DVD: Tracks 1, 4, 10, 11, 32, 64 and 100.

Method for designating an ID address:

- A number of digits are determined through commands RIGHT and LEFT. Numerical UP/DOWN operations are performed through commands REAR and BACK/TEXT. The decision is finalized (entered) with command ATT.

OSD display

Error Code List

Error status from DVD microcomputer	Contents	Display
0X50	Mecha. error	No display
0X40	No disc	No display
0X30	The temperature is abnormal	Thermal Protection in Motion
0X20	Read error	Error-02-XX
0XE2	Non-playable disc	NON-PLAYABLE DISC
0X90	Different region disc	DIFFERENT REGION DISC
0XFF	Undefined error	Error-FF

Error code of read error(Part of XX)

Error Code	Contents	Display
0X99	Data cannot read	Please confirm the disc
0X80	The address cannot be found	Please confirm the disc
0X90	Focus error	Please confirm the disc
0X91	Spindle lock NG	DVD is stopping because mechanism detected abnormality
0X92	Carriage home NG	DVD is stopping because mechanism detected abnormality
0X93	FOK error	Please confirm the disc
0X94	ID/Subcode cannot be read	Please confirm the disc
0X95	High spindle rotation	Please confirm the disc
0X96	Row spindle rotation	DVD is stopping because mechanism detected abnormality
0X98	TOC cannot be found	Please confirm the disc
0X9A	AV chip error	DVD is stopping because mechanism detected abnormality
0X9B	RecoveryNG(BE)	DVD is stopping because mechanism detected abnormality



## ● Skew adjustment

If any of the following replacements have been performed on the system, adjustments for pick up, must be conducted:

1. Pick up unit replacement
2. Spindle motor replacement
3. Carriage chassis replacement
4. Pick up unit main shaft replacement
5. Pick up unit sub-shaft replacement

Measurement device and tools : Oscilloscope

Allen key wrench

40-pin flexible extension

Screw rock(GYL1001)

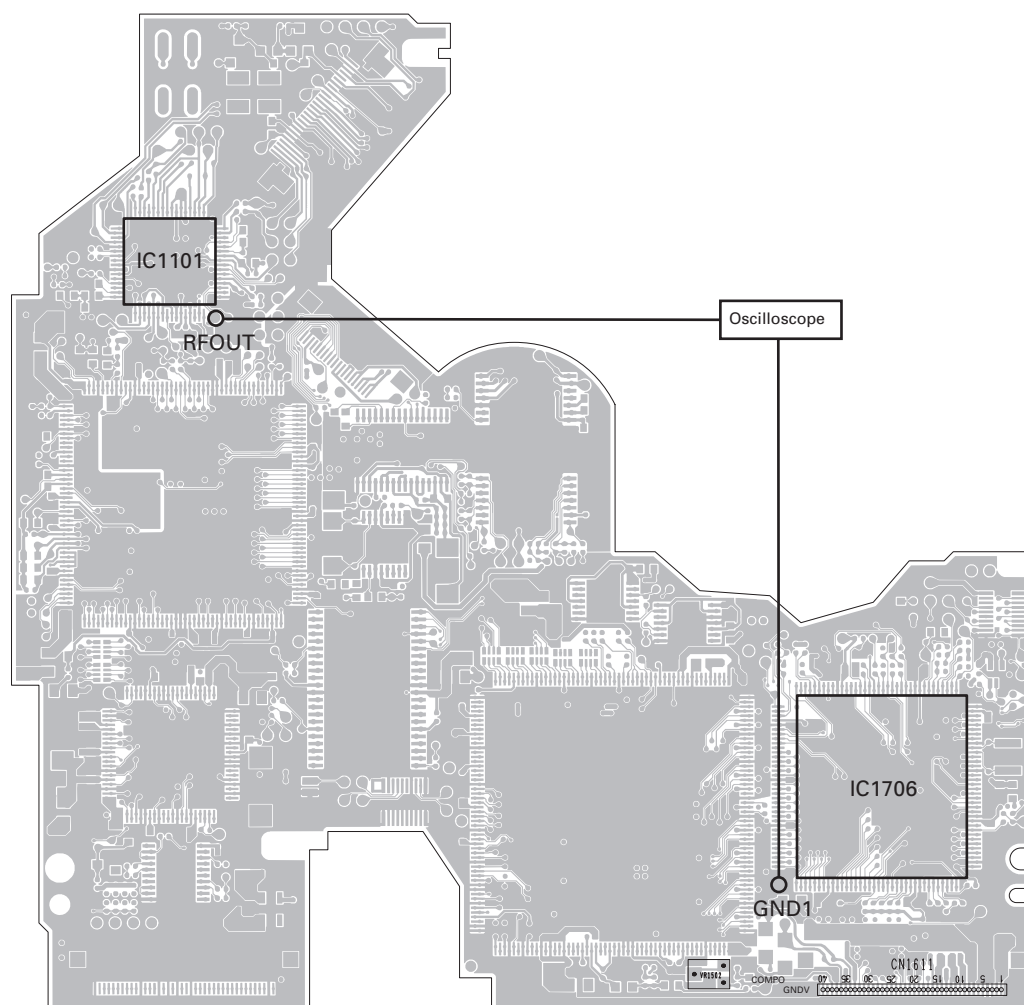
Disk used : GGV1018

Measurement reference : GND1

Measurement point : RFOUT

Skew adjustment connection diagram

- DVD core unit (MS3)





Symptoms in case of poor adjustment: Error efficiency deteriorated: 10-3 (Optimum value: 10-4 or lower)

High jitter of the RF signal

RF waveform deformed

Unstable operation in tracking closing and servo control

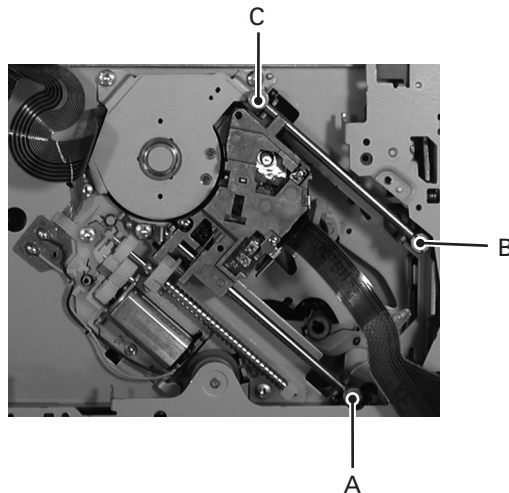
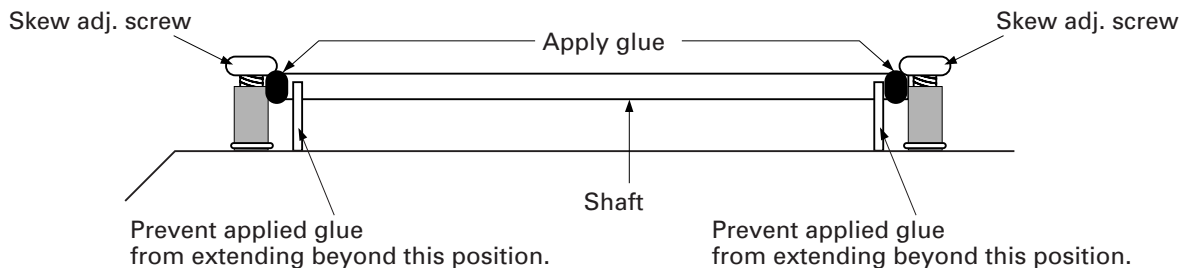
Caution: Avoid exposing your eyes to laser beams for a long time.

Preparation for adjustment: Clean both ends of the shafts.

Use brand new skew screws supplied with the service kit GXX1234.

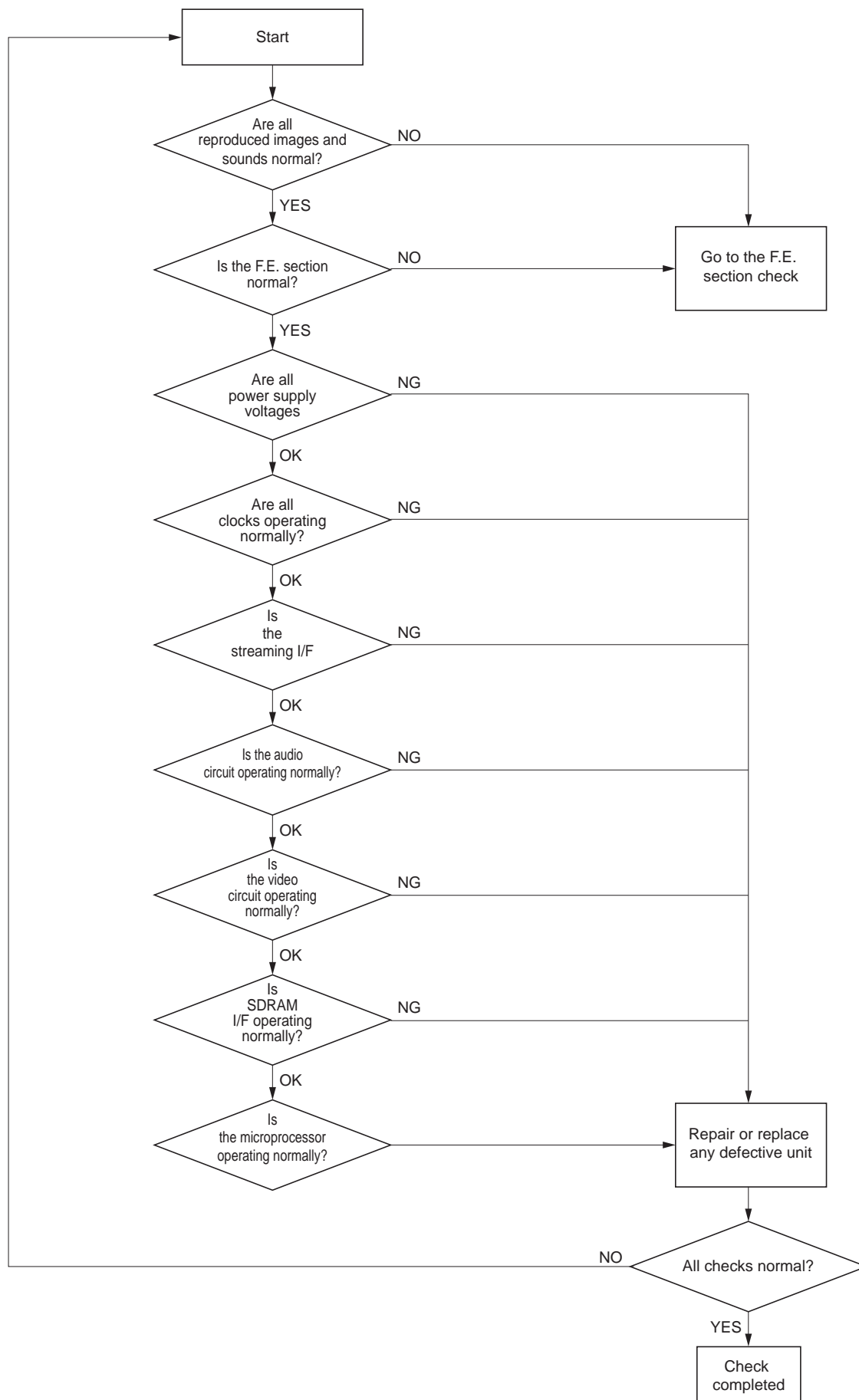
#### Procedures:

1. Place the DVD mechanism module upside down.
2. After replacing the pickup (by referring to the procedures of "Removing the Pickup."), roughly adjust the three skew screws through visual check so that the pickup is mounted in parallel to the CRG chassis around the inner and outer tracks.
3. Connect an oscilloscope as shown in the connecting diagram.
4. Turn on the power of the product. Load the test disc (GGV1018).
5. In the front-end test mode, set the disc type to DVD layer 1. Move the pickup toward the inner tracks.
6. Turn on the laser diodes.
7. With the focus servo closed, complete all automatic adjustments. Close the tracking servo, and then complete all automatic adjustments.
8. Observing the RF waveform on the oscilloscope, slightly turn the skew adj. screw C to maximize the RF level. Next, move the pickup toward the outer tracks. Slightly turn the skew adj. screw B to maximize the RF level. Turn the skew adj. screws A and B in the same direction keeping their rotating angles the same until the RF level becomes the maximum. Lastly, move the pickup toward the inner tracks. Turn the skew adj. screw C so that the RF level becomes the maximum. Repeat the step 8 three times.
9. Turn off the power in the test mode. After confirming that the disc has stopped, eject the disc.
10. Apply glue to the skew adj. screws and the shafts.





## ● Back end section check flow chart





**Check 1: Are all power supply voltages normal?**

Reproduce DVD-REF-A1 Title 1.

Verify the voltage of the sensing pin.

If results are not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components.

NO.	Verification location	Rated value	Unit
1	VD8-PGND	$8\pm0.4$	V
2	VD33-GND	$3.3\pm0.3$	V
3	SRVDD33-GND	$3.3\pm0.3$	V
4	VCC5-GND	$5\pm0.25$	V
5	AVCC5-GND	$5\pm0.3$	V
6	VCC33-GND	$3.3\pm0.15$	V
7	VCC18-GND	$1.8\pm0.15$	V
8	VCC25-GND	$2.5\pm0.2$	V



A

**Check 2: Are all clocks operating normally?**

Reproduce DVD-REF-A1 Title 1.

Checks are to be conducted with a GND reference.

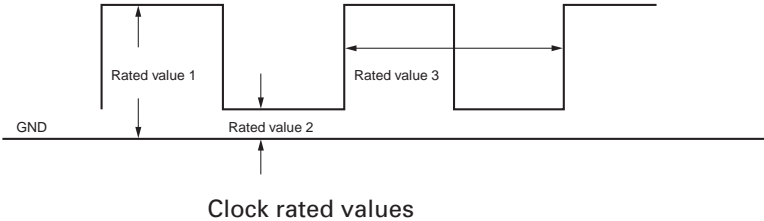
If locations listed under "verification location 2", can be verified, there will be no need to perform verifications for the locations listed under "verification location 1."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in the vicinity of IC1507.

B

NO.	Verification location 1 (contact measurements)	Verification location 2	Media	Rated value1	Rated value 2	Rated value 3
1	CLK27	IC1503 96pin	ALL	2.65V~VCC33	GND~0.65V	27MHz±50ppm
2	EXTCK1	IC1503 100pin	DVD	2.65V~VCC33	GND~0.65V	36.8640MHz±100ppm
3	EXTCK1	IC1503 100pin	CD	2.65V~VCC33	GND~0.65V	33.8688MHz±100ppm
4	MCK16	IC1301 79pin	ALL	2.33~VCC33	GND~0.99V	16.9344MHz±100ppm
5	MCK33	IC1601 3,33pin	ALL	2.33~VCC33	GND~0.10V	33.8688MHz~40.0000MHz

C



D

E

F







### Check 3: Is the streaming I/F operating normally?

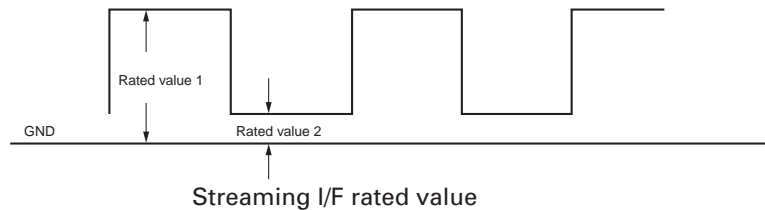
Reproduce DVD-REF-A1 Title 1.

Checks are to be conducted with a GND reference.

If the locations listed under "verification location 2" can be verified, then there is no need to conduct verifications for the locations listed under "verification location 1."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output "input" of the checked location.

NO.	Verification location 1 (contact measurements)	Verification location2	Verification Media	Rated value 1	Rated value 2	Reference waveform	Others
1	STD0	IC1503 81pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD8 at R1425
2	STD1	IC1503 80pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD9 at R1425
3	STD2	IC1503 79pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD10 at R1425
4	STD3	IC1503 78pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD11 at R1425
5	STD4	IC1503 76pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD12 at R1426
6	STD5	IC1503 75pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD13 at R1426
7	STD6	IC1503 74pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD14 at R1426
8	STD7	IC1503 73pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD15 at R1426
9	STCLK	IC1503 70pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name ODA2 at IC1405
10	STVALID	IC1503 69pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name OINTRQ at IC1405
11	MASTER	IC1301 176pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name STENABLE at IC1405









#### Check 4: Is the audio circuit operating normally?

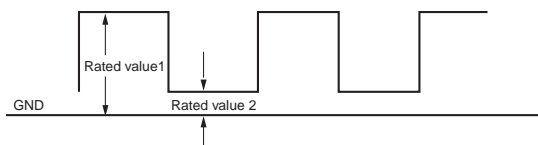
Reproduce DVD-REF-A1 Title 2 Chapter (48V/16-bit/1 kHz/0dB). Verify the circuit described in Figure 2.

Checks are to be conducted using GND<sub>DAU1</sub> (sensing pins) as a reference.

If the locations, listed under "verification location 2", can be verified, there is no need to conduct verifications for the locations listed under "verification location 1."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in the vicinity of the main components.

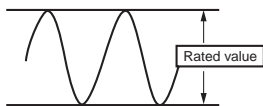
NO.	Verification location 1	Verification location 2	Rated value 1	Rated value 2	Reference waveform
1	AOUT0	IC1503 90pin	2.0V and over	0.8V and lower	Waveform 3
2	SRCK	IC1605 1pin	2.0V and over	0.8V and lower	Waveform 3
3	LRCK	IC1605 3pin	2.0V and over	0.8V and lower	Waveform 3



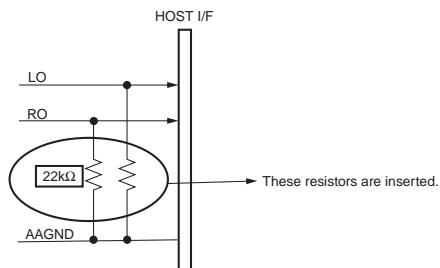
Three serial output rated values

Checks are conducted with the measurement circuit below.

NO.	Verification location 1	Verification location 2	Rated value	Reference waveform
4	LO	CN1611 36pin	1100±150mV	Waveform 4
5	RO	CN1611 34pin	1100±150mV	Waveform 4



Analog audio outputs (LO and RO) rated values



LO and RO output measurement circuit







### Check 5: Is the video circuit operated normally?

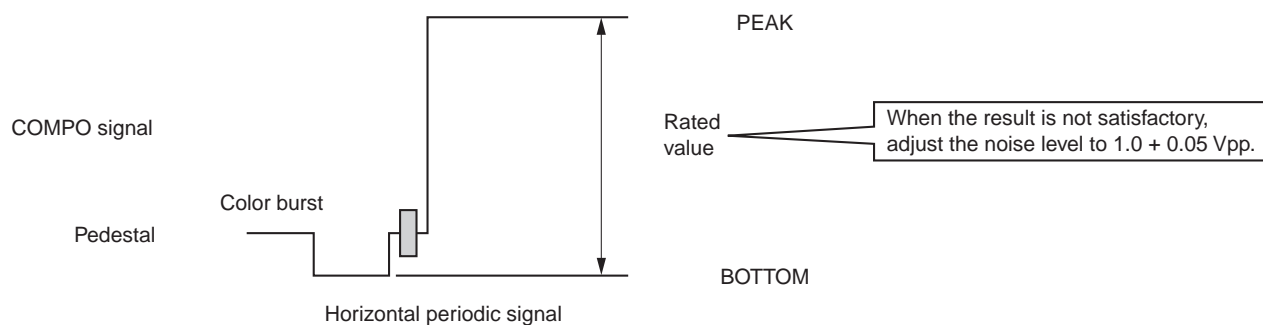
Reproduce DVD-REF-A1 Title 2 Chapters (White 100IRE).

Monitor the output with the oscilloscope, by setting the COMPO signal to a GND reference.

Set the Trigger mode to the TV trigger, and the Trigger line to line-150.

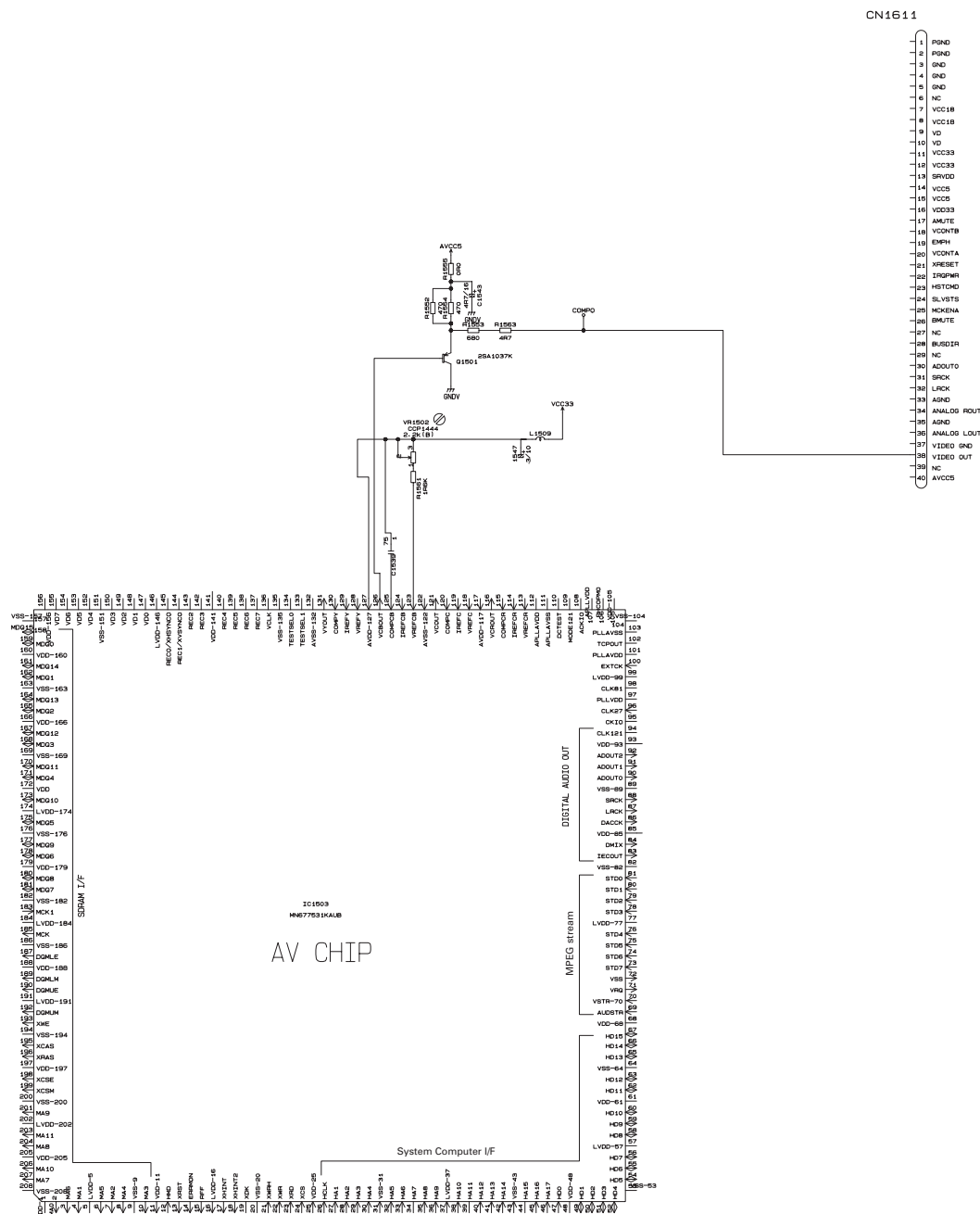
NO.	Verification location (sensing pin)	Rated value	Reference waveform
1	COMPO	$1.0 \pm 0.05V_{pp}$	Waveform 5

If the result is not satisfactory, check to see if there are any problems with resin flux cored solder, parts and components, in the vicinity of line-150 (the section marked ⑤ in the circuit diagram) and peripheral components.



Composite signal 100% output waveform







## Check 6: Is SDRAM I/F operating normally?

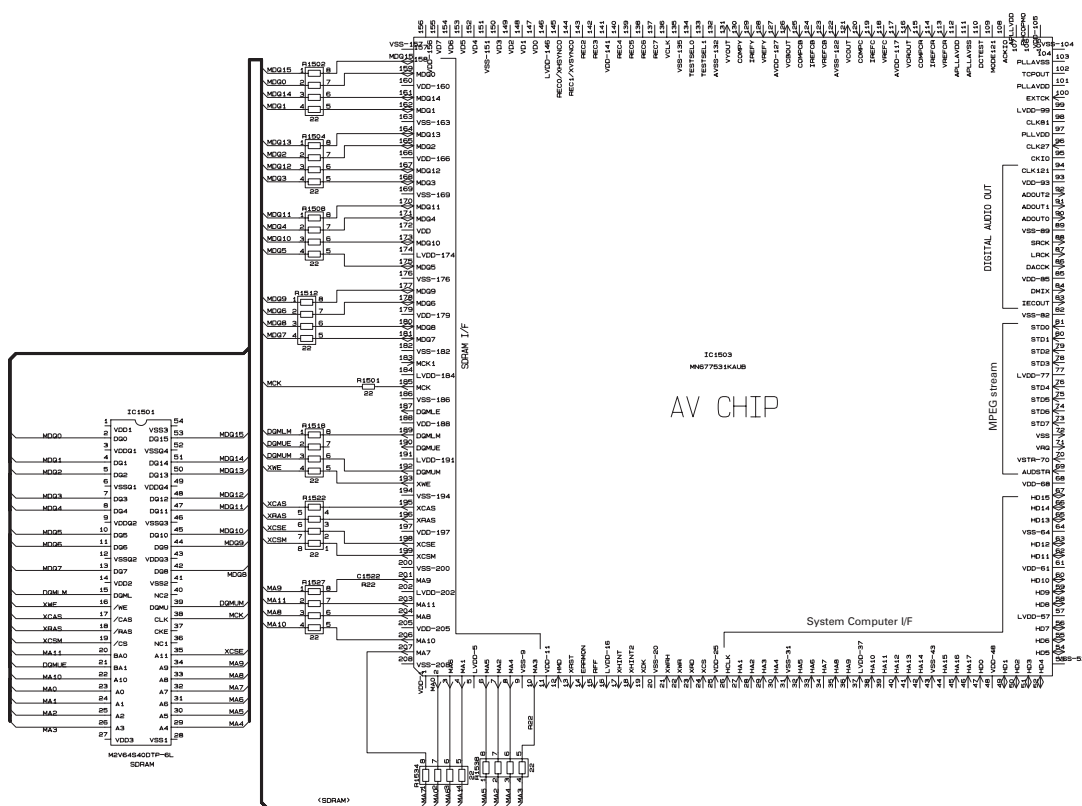
Reproduce DVD-REF-A1 Title 1.

Check the conductivity of both the "Verification location 1" and the "Verification location2."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output "input" of the checked location.

NO.	Signal name	Verification location 1	Verification location 2	Rated value
1	MA0	IC1501 23pin	IC1503 2pin	$22\Omega \pm 5\%$
2	MA1	IC1501 24pin	IC1503 4pin	$22\Omega \pm 5\%$
3	MA2	IC1501 25pin	IC1503 7pin	$22\Omega \pm 5\%$
4	MA3	IC1501 26pin	IC1503 10pin	$22\Omega \pm 5\%$
5	MA4	IC1501 29pin	IC1503 8pin	$22\Omega \pm 5\%$
6	MA5	IC1501 30pin	IC1503 6pin	$22\Omega \pm 5\%$
7	MA6	IC1501 31pin	IC1503 3pin	$22\Omega \pm 5\%$
8	MA7	IC1501 32pin	IC1503 207pin	$22\Omega \pm 5\%$
9	MA8	IC1501 33pin	IC1503 204pin	$22\Omega \pm 5\%$
10	MA9	IC1501 34pin	IC1503 201pin	$22\Omega \pm 5\%$
11	MA10	IC1501 22pin	IC1503 206pin	$22\Omega \pm 5\%$
12	MA11	IC1501 20pin	IC1503 203pin	$22\Omega \pm 5\%$
13	MDQ0	IC1501 2pin	IC1503 159pin	$22\Omega \pm 5\%$
14	MDQ1	IC1501 4pin	IC1503 162pin	$22\Omega \pm 5\%$
15	MDQ2	IC1501 5pin	IC1503 165pin	$22\Omega \pm 5\%$
16	MDQ3	IC1501 7pin	IC1503 168pin	$22\Omega \pm 5\%$
17	MDQ4	IC1501 8pin	IC1503 171pin	$22\Omega \pm 5\%$
18	MDQ5	IC1501 10pin	IC1503 175pin	$22\Omega \pm 5\%$
19	MDQ6	IC1501 11pin	IC1503 178pin	$22\Omega \pm 5\%$
20	MDQ7	IC1501 13pin	IC1503 181pin	$22\Omega \pm 5\%$
21	MDQ8	IC1501 42pin	IC1503 180pin	$22\Omega \pm 5\%$
22	MDQ9	IC1501 44pin	IC1503 177pin	$22\Omega \pm 5\%$
23	MDQ10	IC1501 45pin	IC1503 173pin	$22\Omega \pm 5\%$
24	MDQ11	IC1501 47pin	IC1503 170pin	$22\Omega \pm 5\%$
25	MDQ12	IC1501 48pin	IC1503 167pin	$22\Omega \pm 5\%$
26	MDQ13	IC1501 50pin	IC1503 164pin	$22\Omega \pm 5\%$
27	MDQ14	IC1501 51pin	IC1503 161pin	$22\Omega \pm 5\%$
28	MDQ15	IC1501 53pin	IC1503 158pin	$22\Omega \pm 5\%$
29	MCK	IC1501 38pin	IC1503 185pin	$22\Omega \pm 5\%$
30	XWE	IC1501 16pin	IC1503 193pin	$22\Omega \pm 5\%$
31	XCAS	IC1501 17pin	IC1503 195pin	$22\Omega \pm 5\%$
32	XRAS	IC1501 18pin	IC1503 196pin	$22\Omega \pm 5\%$
33	XCSM	IC1501 19pin	IC1503 199pin	$22\Omega \pm 5\%$
34	XCSE	IC1501 35pin	IC1503 198pin	$22\Omega \pm 5\%$
35	DQMUM	IC1501 39pin	IC1503 192pin	$22\Omega \pm 5\%$
36	DQMLM	IC1501 15pin	IC1503 189pin	$22\Omega \pm 5\%$
37	DQMUE	IC1501 21pin	IC1503 190pin	$22\Omega \pm 5\%$







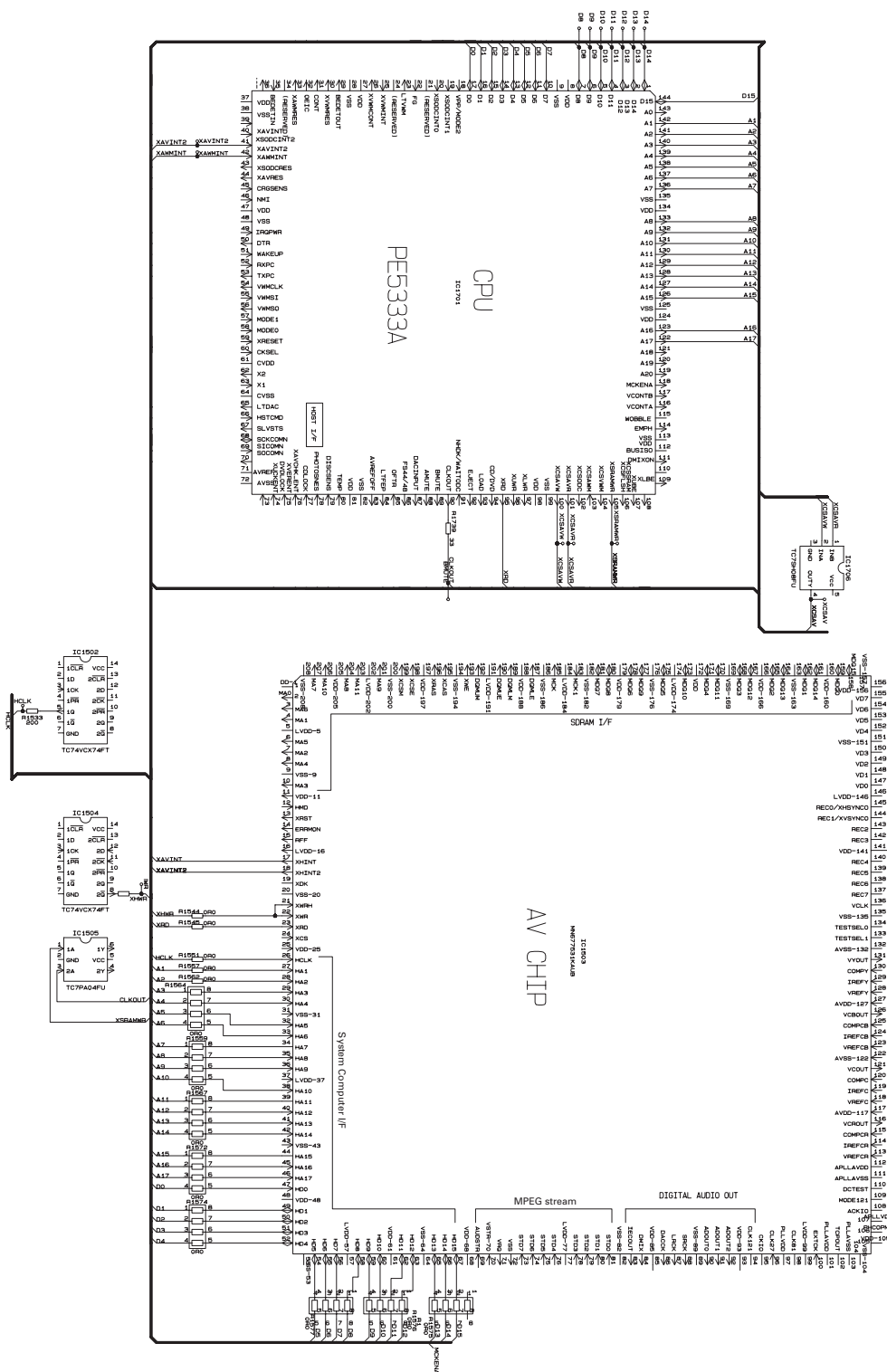
## Check 7: Is the microprocessor operating normally?

Check the conductivity of both the "Verification location 1" and the "Verification location2."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output – input" of the checked location.

NO.	Signal name	Verification location 1	Verification location 2	Verification Media	Rated value	Others
1	A1	IC1701 142pin	IC1503 27pin	ALL	0Ω	
2	A2	IC1701 141pin	IC1503 28pin	ALL	0Ω	
3	A3	IC1701 140pin	IC1503 29pin	ALL	0Ω	
4	A4	IC1701 139pin	IC1503 30pin	ALL	0Ω	
5	A5	IC1701 138pin	IC1503 32pin	ALL	0Ω	
6	A6	IC1701 137pin	IC1503 33pin	ALL	0Ω	
7	A7	IC1701 136pin	IC1503 34pin	ALL	0Ω	
8	A8	IC1701 133pin	IC1503 35pin	ALL	0Ω	
9	A9	IC1701 132pin	IC1503 36pin	ALL	0Ω	
10	A10	IC1701 131pin	IC1503 38pin	ALL	0Ω	
11	A11	IC1701 130pin	IC1503 39pin	ALL	0Ω	
12	A12	IC1701 129pin	IC1503 40pin	ALL	0Ω	
13	A13	IC1701 128pin	IC1503 41pin	ALL	0Ω	
14	A14	IC1701 127pin	IC1503 42pin	ALL	0Ω	
15	A15	IC1701 126pin	IC1503 44pin	ALL	0Ω	
16	A16	IC1701 123pin	IC1503 45pin	ALL	0Ω	
17	A17	IC1701 122pin	IC1503 46pin	ALL	0Ω	
18	D0	IC1701 17pin	IC1503 47pin	ALL	0Ω	
19	D1	IC1701 16pin	IC1503 49pin	ALL	0Ω	
20	D2	IC1701 15pin	IC1503 50pin	ALL	0Ω	
21	D3	IC1701 14pin	IC1503 51pin	ALL	0Ω	
22	D4	IC1701 13pin	IC1503 52pin	ALL	0Ω	
23	D5	IC1701 12pin	IC1503 54pin	ALL	0Ω	
24	D6	IC1701 11pin	IC1503 55pin	ALL	0Ω	
25	D7	IC1701 10pin	IC1503 56pin	ALL	0Ω	
26	D8	IC1701 7pin	IC1503 58pin	ALL	0Ω	
27	D9	IC1701 6pin	IC1503 59pin	ALL	0Ω	
28	D10	IC1701 5pin	IC1503 60pin	ALL	0Ω	
29	D11	IC1701 4pin	IC1503 62pin	ALL	0Ω	
30	D12	IC1701 3pin	IC1503 63pin	ALL	0Ω	
31	D13	IC1701 2pin	IC1503 65pin	ALL	0Ω	
32	D14	IC1701 1pin	IC1503 66pin	ALL	0Ω	
33	D15	IC1701 144pin	IC1503 67pin	ALL	0Ω	
34	XCSAVR	IC1701 101pin	IC1706 1pin	ALL	0Ω	
35	XCSAVW	IC1701 100pin	IC1706 2pin	ALL	0Ω	
36	XCSAV	IC1706 4pin	IC1503 24pin	ALL	0Ω	
37	XAVINT	IC1701 42pin	IC1503 17pin	ALL	0Ω	
38	XAVINT2	IC1701 41pin	IC1503 18pin	ALL	0Ω	
39	XRD	IC1701 95pin	IC1503 23pin	ALL	0Ω	
40	CLKOUT	IC1701 90pin	IC1505 3pin	ALL	33Ω	Dividing circuitFor verification location 2, include also IC1502 pin-3
41	HCLK	IC1502 5pin	IC1503 26pin	ALL	200Ω ± 5 %	
42	XSRAMWR	IC1701 105pin	IC1505 1pin	ALL	0Ω	
43	XHWR	IC1504 8pin	IC1503 21pin	ALL	68Ω ± 5 %	







Note: 1 The encircled number denote measuring point in the circuit diagram.

2 Reference voltage  $V_{HALF}$  : 1.65V

A

B

C

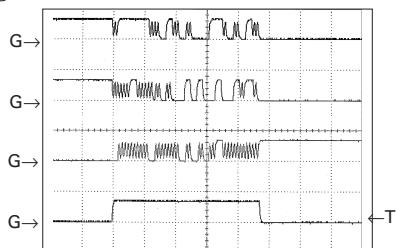
D

E

F

⑪ CH1: STD1  
⑫ CH2: STD4  
⑬ CH3: STD7  
⑭ CH4: STENABLE

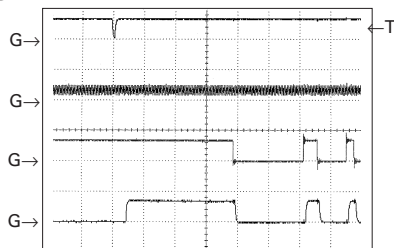
5V/div. 2 $\mu$ s/div.



Wave 1

⑮ CH1: AVRTM  
⑯ CH2: STCLK  
⑰ CH3: STVALID  
⑭ CH4: STENABLE

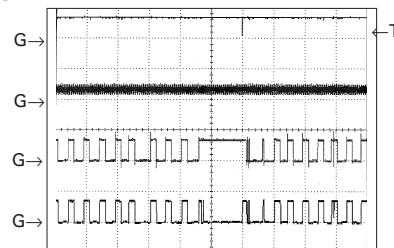
5V/div. 2 $\mu$ s/div.



Wave 2(1)

⑮ CH1: AVRTM  
⑯ CH2: STCLK  
⑰ CH3: STVALID  
⑭ CH4: STENABLE

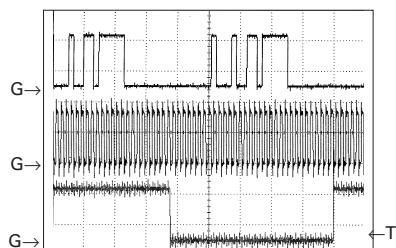
5V/div. 50 $\mu$ s/div.



Wave 2(2)

⑱ CH1: AOUT0  
⑲ CH2: SRCKAV  
⑳ CH3: LRCKAV

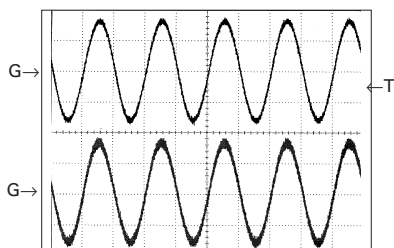
2V/div. 2 $\mu$ s/div.



Wave 3

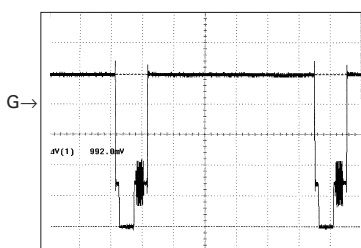
㉒ CH1: LO  
㉓ CH2: RO

1V/div. 500 $\mu$ s/div.



Wave 4

㉔ CH1: COMPO 200mV/div. 10 $\mu$ s/div.  
[White 100% output]



Wave 5

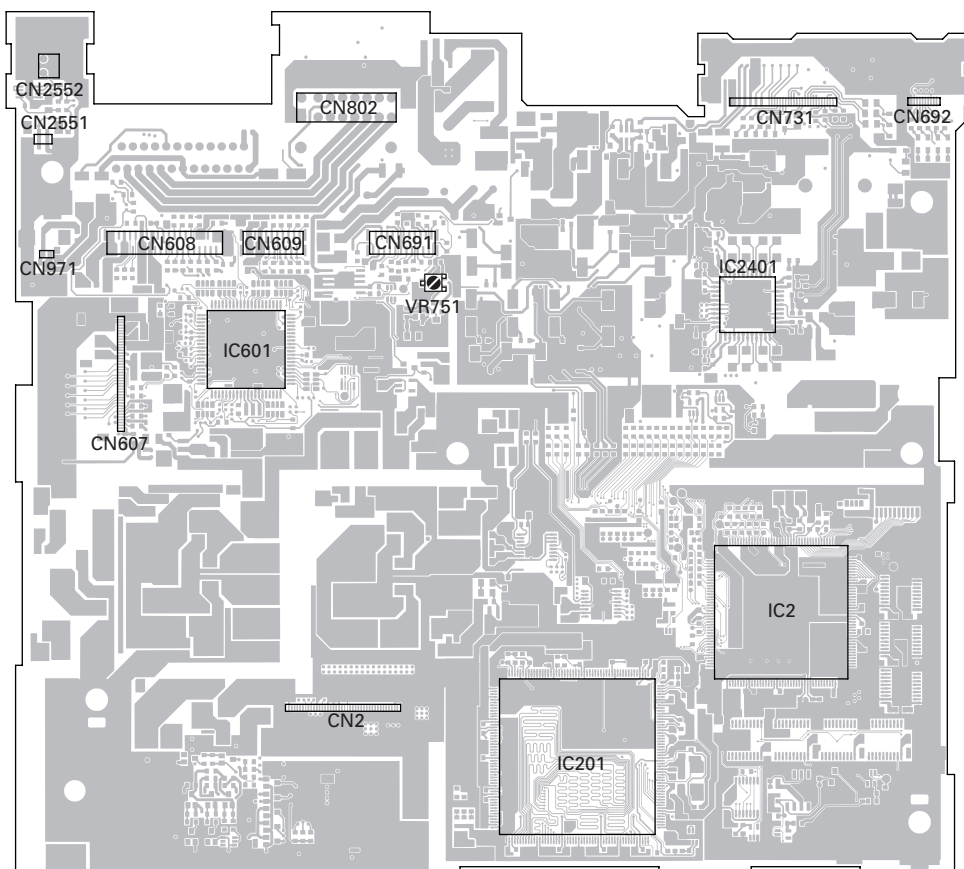


## 6.3 CC UNIT ADJUSTMENT

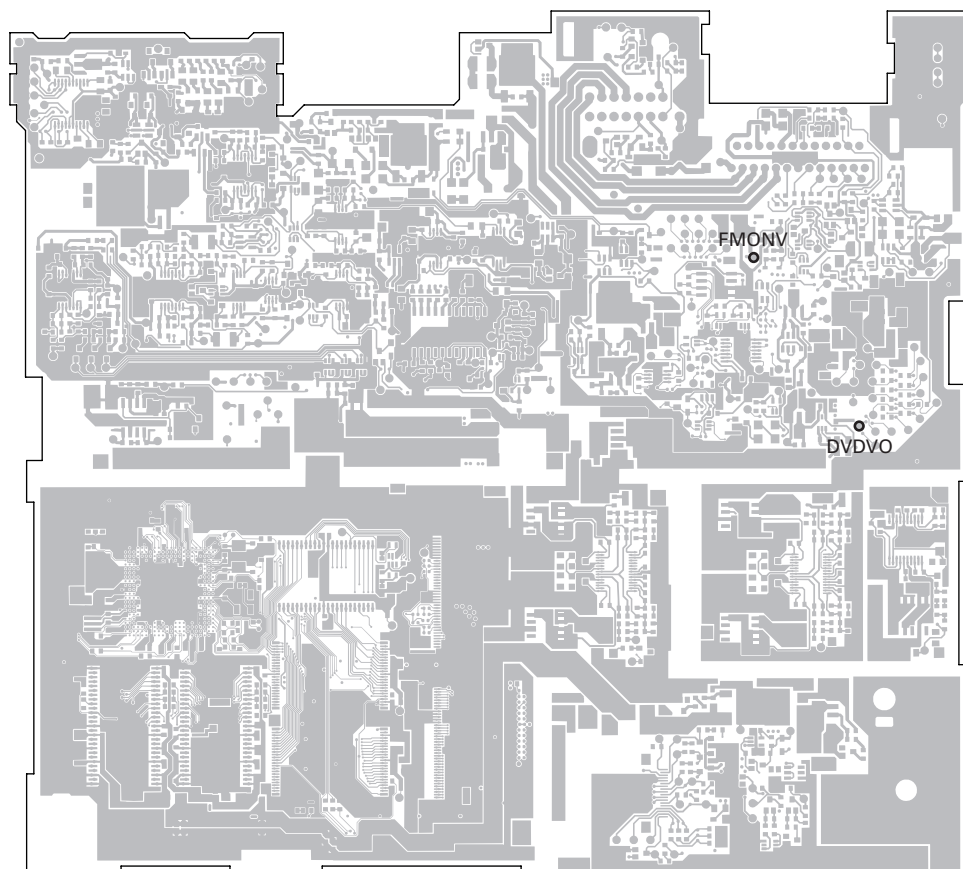


● Adjustment point

CC UNIT(SIDE A)



CC UNIT(SIDE B)





A


B

C

D

E

F

Step	Adjustment item	Mode	Input (input test pin,specs, other conditions)	Output (measuring point, waveform)	Measuring instruments	Specs	Adjusting point
1	Main video level	VTR	Input test pin : DVDVO Signal : 100IRE(white 100%) Level : 1.0Vp-p(via 75Ω)	Measuring point : FMONV 	Oscilloscope	1.50 ± 0.05Vp-p Measure between the sync tip and 100IRE (top level).  The 12kΩ terminal on the measuring instrument.	VR751

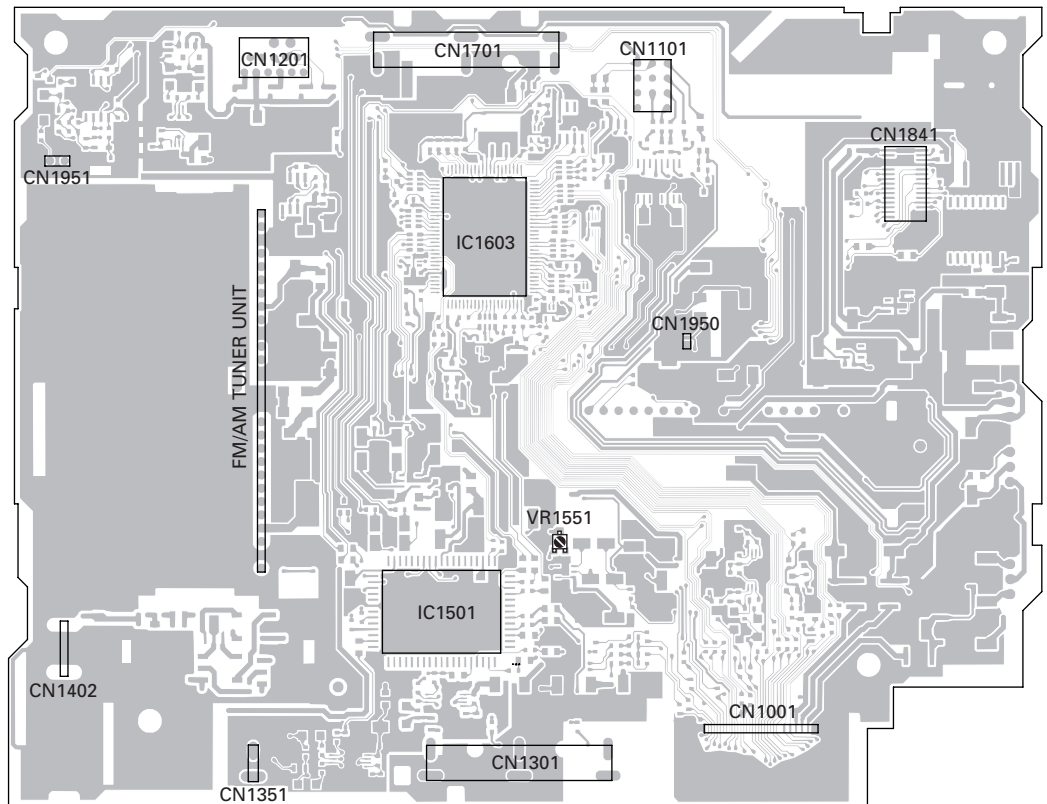


## 6.4 MOTHER PCB ADJUSTMENT

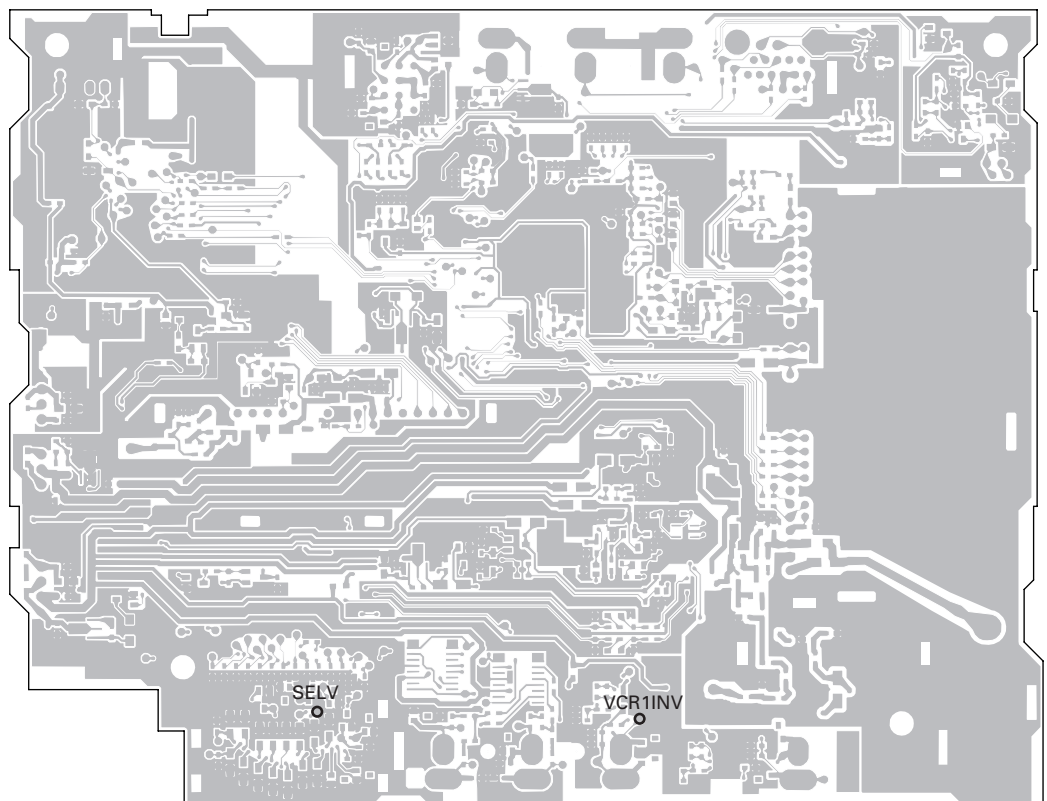


### ● Adjustment point

MOTHER PCB(SIDE A)




MOTHER PCB(SIDE B)





A  
B  
C  
D  
E  
F

Step	Adjustment item	Mode	Input (input test pin,specs, other conditions)	Output (measuring point, waveform)	Measuring instruments	Specs	Adjusting point
1	Composite video level	VTR	Input test pin : VCR1INV Signal : 100IRE(white 100%) Level : 1.0Vp-p(via 75Ω)	Measuring point : SELV 	Oscilloscope	1.00 ± 0.05Vp-p Measure between the sync tip and 100IRE (top level).  Measuring conditions: Select the 75Ω terminal on the measuring instrument.	VR1551

(1) The Video level (Vlevel) is out of spec.  
When the Vlevel is more than 1.05Vp-p, the images become whitish.  
When the Vlevel is less than 0.95Vp-p, the images become blackish.

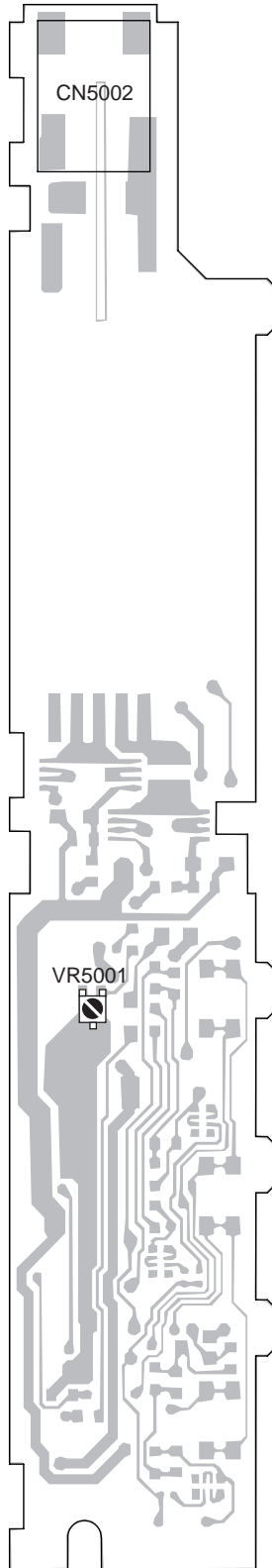


## 6.5 INVERTER PCB ADJUSTMENT

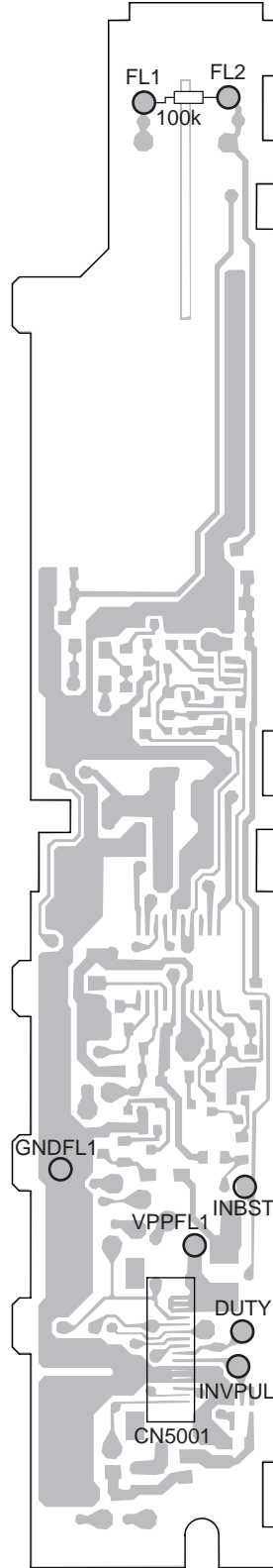


### ● Adjustment point

INVERTER PCB(SIDE A)



INVERTER PCB(SIDE B)



No	Adjustment item	Input signal	Measuring point	Adjusting point	Measuring method and specs.	Remarks
1	BACK LIGHT DRIVE FREQUENCY	Apply 14.4V $\pm$ 0.2V to TP VPPFL1 TP GNDFL1, TP INVPUL, TP DUTY and TP INBST : GND	TP:FL1,FL2	VR 5001	48.0 $\pm$ 0.1kHz	100k ohms is connected between TP FL1 and TP FL2. It acts as the monitor of the waveform after potential. Don't acts as the monitor of the TP FL2 directly. (there is a possibility that a measuring instrument may be destroyed, for high voltage.) Out of spec., when frequency change of following may become impossible.
2	FREQUENCY CHANGE CHECK	Apply wave of 98.0 $\pm$ 1kHz to TP INVPUL 5V 10 $\pm$ 2% 0V	TP:FL1,FL2		49.0 $\pm$ 0.5kHz	It checks that the waveform after potential is set to 49 kHz
3	FREQUENCY CHANGE CHECK	Apply wave of 104.0 $\pm$ 1kHz to TP INVPUL 5V 10 $\pm$ 2% 0V	TP:FL1,FL2		52.0 $\pm$ 0.5kHz	It checks that the waveform after potential is set to 52 kHz

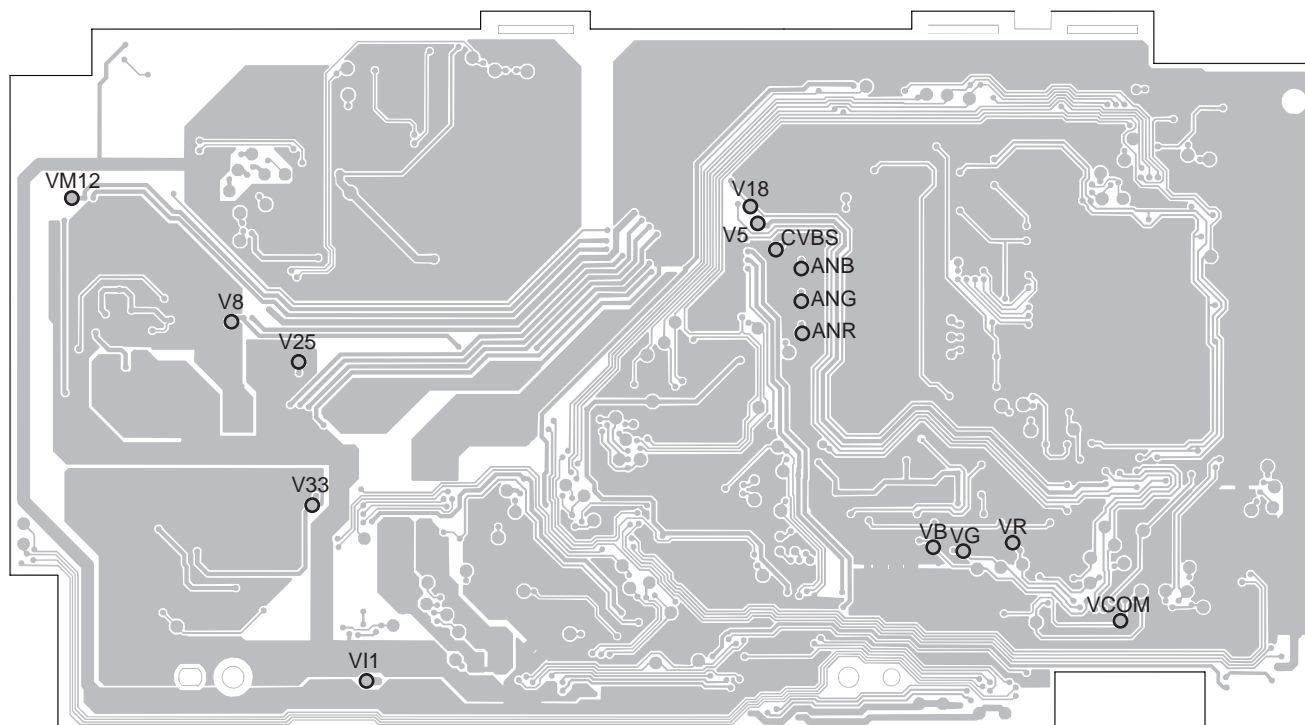


## 6.6 MONITOR PCB ADJUSTMENT



● Adjustment point

MONITOR PCB(SIDE B)





Notes:

When the power supply for TC90A64AF-P (IC4001) is OFF, be careful not to apply any voltage to its terminals except for IIC lines(SDA and SCL). The IIC lines can accept a maximum of 5V.

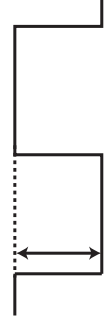
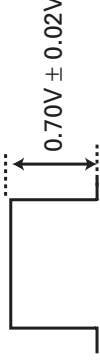

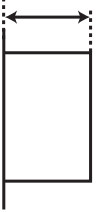

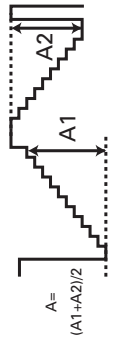
No	Adjustment item	Input	Measuring point	Adjusting point	Measuring method and specs.	Remarks
1	3.3V power supply verification	Apply 14.4V to TP V11.	(TP V33)	—	$V33 = 3.3V \pm 0.3V$	
2	2.5V power supply verification	Apply 14.4V to TP V11.	(TP V25)	—	$V25 = 2.5V \pm 0.2V$	
3	5V power supply verification	Apply 14.4V to TP V11.	(TP V5)	—	$V5 = 5.0V \pm 0.3V$	
4	8V power supply verification	Apply 14.4V to TP V11.	(TP V8)	—	$V8 = 8.0V \pm 0.6V$	
5	18.5V power supply verification	Apply 14.4V to TP V11.	(TP V18)	—	$V18 = 18.5V \pm 0.8V$	
6	-12V power supply verification	Apply 14.4V to TP V11.	(TP VM12)	—	$VM12 = -12.0V \pm 0.6V$	



# Notes:

When the power supply for TC90A64AF-P is OFF, be careful not to apply any voltage to its terminals except for IIC lines(SDA and SCL). The IIC lines can accept a maximum of 5V.

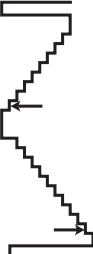
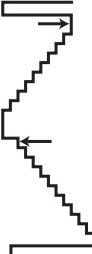
2) In the following table, SA\*\*h is a sub-address of TC90A64AF-P.

No	Adjustment item	Input	Measuring point	Adjusting point	Measuring method and specs.	Remarks
7	Vcom amp output Voltage waveform Verification	Any input signal	TP VCOM	—		
8	Input waveform verification (RGB)	Apply a white 100% signal to TP AVR,ANG, ANB.	TP ANR,ANG, ANB	—		The signal generator should be used via 75 ohms. (specs in desinging : 75.0 ± 0.2ohms)
9	Input waveform verification (composite)	Apply a white 100% signal to TP CVBS.	TP CVBS	—		The signal generator should be used via 75 ohms.
10	RGB amp output voltage waveform verification	Apply a black signal to TP ANR,ANG,ANB. (Video level:0%)	TP VG	—		The input signal has no setup. (Apply a black signal to TP CVBS)
11	Gamma 0 Verification	Apply a 10-step signal to TP ANR,ANG,ANB.	TP VG	—	 The first-step $A = 0.50V \pm 0.10V$ $A = (A1+A2)/2$	The input 10-step signal has no setup.
12	Gamma 2 verification	Apply a 10-step signal to TP ANR,ANG,ANB.	TP VG	—	 The 10-step $A = 3.10V \pm 0.15V$ $A = (A1+A2)/2$	The input 10-step signal has no setup. If the measured value is out of specs, change the setting of SA24h D11 - 8 (1/2 inflection point: GAMMA2 in the line adjustment 1 mode) (Register setting specs: 4 ± 1)



Notes:

- 1) When the power supply for TC90A64AF-P is OFF, be careful not to apply any voltage to its terminals except for IIC lines(SDA and SCL). The IIC lines can accept a maximum of 5V.
- 2) In the following table, SA\*\*h is a sub-address of TC90A64AF-P.

No	Adjustment item	Input	Measuring point	Adjusting point	Measuring method and specs.	Remarks
13	B SUB BRIGHT	Apply a 10-step signal to TP ANR,ANG, ANB.	TP VG and VB	Register setting of SA39h D11 - 8	Adjust the first step levels of the G waveform and the B waveform. 	Register setting specs : $8 \pm 2$ (specs in designing: $8 \pm 1$ ) In the Line adjustment 2 mode, SUB BRI B can be used as the adjusting point.
14	B SUB CONTRAST	Apply a 10-step signal to TP ANR,ANG, ANB.	TP VG and VB	Register setting of SA26h D7 - 1	Adjust the 10th step levels of the G waveform and the B waveform. 	Register setting specs: $64 \pm 3$ (specs in designing: $64 \pm 2$ ) In the Line adjustment 2 mode, SUB CON B can be used as the adjusting point.
15	R SUB BRIGHT	Apply a 10-step signal to TP ANR,ANG, ANB.	TP VG and VR	Register setting of SA39h D15 - 12	Adjust the first step levels of the G wave form and the R waveform.(Measuring point is the same as that of No.13.)	Register setting specs: $8 \pm 2$ (specs in designing: $8 \pm 1$ ) In the Line adjustment 2 mode, SUB BRI R can be used as the adjusting point.
16	R SUB CONTRAST	Apply a 10-step signal to TP ANR,ANG, ANB.	TP VG and VR	Register setting of SA26h D15 - 9	Adjust the 10th step levels of the G waveform and the R waveform.(Measuring point is the same as that of No.14.)	Register setting specs: $64 \pm 3$ (specs in designing: $64 \pm 2$ ) In the Line adjustment 2 mode, SUB CON R can be used as the adjusting point.
17	Horizon dot position	Any input signal	—	Register setting of SA2Ah D3 - 0	5(0101)	After being written in,the setting value of EEP-ROM is checked. 2 mode,DOT CLK can be used as the adjusting point.
18	Aging	Any input signal	—	—	Keep the unit in the operation mode for 30 minutes or longer.	Block light lighting. An animation is displayed.
19	Flicker	Input a signal for alternate white and black lines to TP ANR, TP ANG and TP ANB.	Screen	Register setting of SA22h D15 - 8	Adjust so that the flickers become minimum in all	If it input a signal for alternate white into TP CVBS, it is possible. (However, adjustment by RGB has priority.) The luminance level of the input signal: 50%. In the flicker adjustment mode, COM DC can be used as the adjusting point.

Flicker adjustment has been deviated The images flicker.



## ●EEPROM setting mode

\*) Since this product does not have OSD IC, OSD for adjustment is displayed by using GGF1416 and GGF1463 at the time of monitor adjustment. As you will find lands for 14 pins with 0.8mm pitch at the left top part of the monitor board, directly solder a flexible PCB of GGD1323 for adjustment. As GGD1322 is not used, be careful not to short the terminal.

### [Operations]

To enter the setting mode, while keeping the EPRTTEST terminal at "Low", turn reset the monitor micro computer. While pressing the [REAR] and [EQ] Kyes at the same time,reset.

Flicker adjustment mode

Line adjustment 1 mode

Line adjustment 2 mode

Dimmer parameter setting mode

[ ↑ ↓ ] button: Used to select a desired adjustment item in each mode

[ ←→ ] button: Used to adjust the selected item

### Notes:

1) The setting values are written in the EEPROM and then the read-out data is displayed on the screen.

WRITE and READ operations are processed by the block data of 16 bits.

The total bits for the settings depend on adjusting items.

2) For CS (Check Sum) items, when the settings are changed, the CS value is written in 8 bits by applying the exclusive OR (XOR). The CS value is first written in the EEPROM and then the read-out data is displayed. If the written data is different from the read-out data, the letter color for the read-out data is changed.

## ● Memory items and addresses on the EEPROM(S-93C46BR0I-J8T1)

EEPROM address	Bit15	Bit14	Bit13	Bit12	Bit11	Bit10	Bit9	Bit8	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0	
00H	Dimmer external light threshold (high)								Dimmer external light threshold (low)								
01H	Backlight output (upper limit)								Backlight output (lower limit)								
02H	Common reverse output center (COM DC) PIP SA:22h[B15-8]								Common reserve output amplitude (COM AMP) PIP SA:22h[B7-2]						Don't care		
03H	Don't care		Output clamp DC (RGB BIAS) PIP SA:23h[B13-8]						Don't care				γ 0 inflection point (GAMMA 0) PIP SA:23h[B3-0]				
04H	γ 3 inflection point (GAMMA 3) PIP SA:24h[B15-12]				γ 2 inflection point (GAMMA 2) PIP SA:24h[B11-8]				γ 1 inflection point (GAMMA 1) PIP SA:24h[B7-3]				Don't care				
05H	Output sub contrast R (SUB CON R) PIP SA:26h[B15-9]						Don't care		Output sub contrast B (SUB CON B) PIP SA:26h[B7-1]						Don't care		
06H	Sub brightness R after γ circuit (SUB BRI R) PIP SA:39h[B15-12]				Sub brightness B after g circuit (SUB BRI B) PIP SA:39h[B11-8]				Don't care								
07H	Don't care								Don't care				Clock phase adjustment (DOT CLK) PIP SA:2Ah[B3-0]				
08H	Don't care								Don't care						Sharpness (SHARPNESS) PIP SA:05h[B2-1]		Don't care
09H-1BH	Don't care																
1CH	Check sum address (00h-1bh)																
1DH	Don't care								Common reverse output center(Reference)								
1EH	Don't care												Clock phase adjustment initial value				
1FH	Don't care																
20H	External light of dimmer adjustment(H)								Back light of dimmer adjustment(H)								
21H	External light of dimmer adjustment(M)								Back light of dimmer adjustment(M)								
22H	External light of dimmer adjustment(L)								Back light of dimmer adjustment(L)								
23H-3FH	Don't care																



## EEPROM initial value

Item	Meaning	initial value(hex)	initial value(DEC)
COM_DC	Common reverse output center	8C	140
COM_AMP	Common reverse output amplitude	1E	30
RGB_BIAS	Out clamp DC	00	00
GAMMA0	$\gamma$ 0	02	02
GAMMA3	$\gamma$ 3	04	04
GAMMA2	$\gamma$ 2	04	04
GAMMA1	$\gamma$ 1	13	19
SUB_CON_R	Output sub contrast R	40	64
SUB_CON_B	Output sub contrast B	40	64
SUB_BRI_R	Sub brightness R after $\gamma$ circuit	08	08
SUB_BRI_B	Sub brightness B after $\gamma$ circuit	08	08
DOT_CLK	Clock phase adjustment	05	05
SHARPNESS	Sharpness	03	03
BL_MAX	Back light output (Max.)	C4	196
BL_MIN	Back light output (Min.)	5B	91
REF_HIGH	Dimmer (H)	C0	192
REF_LOW	Dimmer (L)	60	96
LUM_HIGH	External light (H)	E2	226
LUM_MID	External light (M)	87	135
LUM_LOW	External light (L)	52	82
BL_HIGH	Back light (H)	C4	196
BL_MID	Back light (M)	C4	196
BL_LOW	Back light (L)	68	104

**[Displays in each mode]**

In the following figures, the letters and numbers surrounded by a large square are for OSD examples.

On the screen, the adjustment names and the settings (or written data) are listed.

The settings (or written data) will change when some adjustments are made in each mode.

\* The following examples show the maximum values.

**(1) Flicker adjustment mode**

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Common reverse output center	[0 - 255]	COM DC	255		



## (2) Line adjustment 1 mode

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Bright (SA22: B7-2)	[0 - 63]	BRIGHT	63		LINE1
Contrast (SA25: B7-1)	[0 - 127]	CONTRAST	127		
Common reverse output center	[0-255]	COM DC	255		
Common reverse output amplitude	[0-63]	COM AMP	63		
Output clamp DC	[0-63]	RGB BIAS	63		
Y0 inflection point	[0-15]	GAMMA0	15		
Y3 inflection point	[0-15]	GAMMA3	15		
Y2 inflection point	[0-15]	GAMMA2	15		
Y1 inflection point	[0-31]	GAMMA1	31		
				CS	FF

## Notes:

## 1) CONTRAST data

The CONTRAST data is adjustable, and used as reference data for other adjustment items, which is not memorized in the EEPROM.

## 2) BRIGHT and COM AMP data

The BRIGHT and COM AMP adjustments are made by using the same 2-screen IC register(SA22h B7-2: common reverse output amplitude).

Therefore, adjusting one of the data will change the other one.

## (3) Line adjustment 2 mode

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Bright (SA22: B7-2)	[0 - 63]	BRIGHT	63		LINE2
Contrast (SA25: B7-1)	[0 - 127]	CONTRAST	127		
Output sub contrast R	[0 - 127]	SUB CON R	127		
Output sub contrast B	[0 - 127]	SUB CON B	127		
Sub brightness R after $\gamma$ circuit	[0 - 15]	SUB BRI R	15		
Sub brightness B after $\gamma$ circuit	[0 - 15]	SUB BRI B	15		
Clock phase adjustment	[0 - 15]	DOT CLK	15		
Sharpness	[0 - 3]	SHARPNESS	3		
				CS	FF

## Notes:

## 1) CONTRAST data

The CONTRAST data is adjustable, and used as reference data for other adjustment items, which is not memorized in the EEPROM.

## 2) SUB BRI R and SUB BRI B data

The displayed value or EEPROM written data is different from the setting value for the 2-screen IC register (IC4001 : TC90A64AF-P).

(Before displayed on the screen, the setting value is converted via some software.)

Displayed value (adjusting value) (DEC)	EEPROM written value. (DEC)	2-screen IC register setting (BIN)	
15	15	0111	(MAX)
14	14	0110	
.	.	.	
.	.	.	
9	9	0001	
8	8	0000	(TIP)
7	7	1111	
.	.	.	
.	.	.	
1	1	1001	
0	0	1000	(MIN)



#### (4) Dimmer parameter setting mode

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Backlight output (MAX)	[0 - 255]	BL MAX	FF		DIMMER
Backlight output(MIN)	[0 - 255]	BL MIN	FF		
Dimmer threshold (high)	[0 - 255]	REF H	FF		
Dimmer threshold (low)	[0 - 255]	REF L	FF		
External light point (high)	[0 - 255]	LUM H	FF		
External light point (middle)	[0 - 255]	LUM M	FF		
External light point (low)	[0 - 255]	LUM L	FF		
Backlight point (high)	[0 - 255]	BL H	FF		
Backlight point (middle)	[0 - 255]	BL M	FF		
Backlight point (low)	[0 - 255]	BL L	FF	CS	FF

Note:

The dimmer point data is memorized in the EEPROM, but not treated as a CS item.  
It's because the settings are adjustable by the user.

### ● Dot Clock Adjustment Mode

#### [Operations]

- [Dot Clock adjustment mode] starting procedure  
Reset start while pressing the [ENT] and [ANGLE+] Keys together.
- [Dot Clock adjustment mode] cancellation Monitor's microcomputer OFF.
- The operation after this should use Navigation's remote controller.
- [↑↑] button : Used to select a desired adjustment item in each mode.
- [— —] button : Used to adjust the selected item.

#### [EEPROM : S-93C46BR0I-J8T1]

The setting values are written in the EEPROM and then the read-out data is displayed on the screen.  
WRITE and READ operations are processed by the block data of 16 bits.

#### [Display]

In the following figures,a large square are for OSD examples.

#### Dot Clock adjustment mode

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Clock phase adjustment	[0 - 15]	DOT CLK	15		
Clock phase adjustment (initial)	[0 - 15]	[FACTORY	8	]	
Common reverse output center	[0-255]	COM DC	255		
Common reverse output center adjustment (initial)	[0-255]	[FACTORY	140	]	

\* CS(Check Sum)display is not performed.



## ● To operate the Monitor Assy only

Setting of the TP1(EPRTTEST), TP2(TESTAGE) and TP3(TOUCHTS) in single operation mode is as follows.

TP2	TP3	TP1	Contents
L	H	H	For aging (See p.221.)
L	-	L	EEPROM setting mode (See p.222.)
L	L	H	Touch panel test mode (See p.231.)

H : Not connect

L : Connect to the ground

### Contents of single operation mode

[For aging]

MVIPW : ON  
MFLPW : ON  
DIMMER : 5V (FFH)  
BRIGHT :  $\pm 0$   
CONTRAST :  $\pm 0$   
WIDE MODE : Full size

[EEPROM setting mode]

MVIPW : ON  
MFLPW : ON  
DIMMER : The calculated value from coordinates of EEPROM data  
BRIGHT :  $\pm 0$   
CONTRAST :  $\pm 0$   
WIDE MODE : Full size

[Touch panel test mode]

MVIPW : ON  
MFLPW : ON  
DIMMER : The calculated value from coordinates of EEPROM data  
BRIGHT :  $\pm 0$   
CONTRAST :  $\pm 0$   
WIDE MODE : Full size



## 6.7 TEST MODE

### ● NAVIGATION TEST MODE

#### 1. How to start the test mode

1. When +Battery and ACC are ON, push RESET and EJECT buttons simultaneously.
2. Release RESET button only.
3. When “password entry screen” is displayed, release EJECT button.
4. Enter the password.
5. When the password has been entered, press [ENTER] key.
6. If the correct password has been entered, the test mode menu will be displayed.

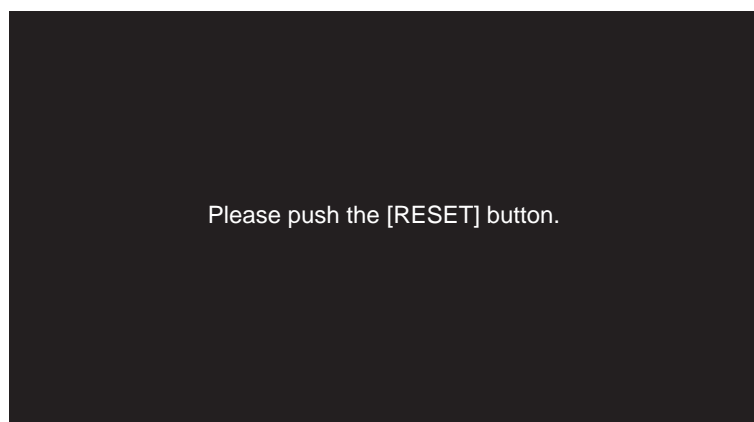
\* The password entry screen, as the one used in the previous model, is no longer displayed.

<< Password for the service >>

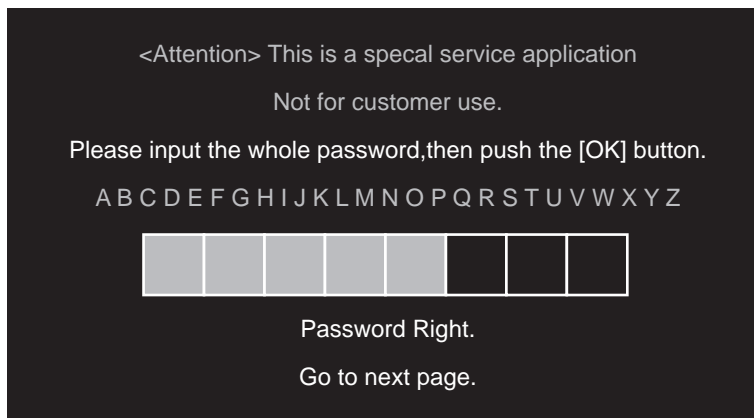
The password is [↑(up)] → [↑(up)] → [↓(down)] → [↓(down)] → [ENTER].

If 8 digits or more are entered and [ENTER] key is pressed, it will be treated as a password error.

- Password entry screen



- Password OK : After 2 seconds or so, the screen will automatically move on to the menu screen.



- Password NG : Nothing will be displayed, and reboot action will be taken.



## 2. Test mode menu

### TESTMODE MENU [SERVICE\_MENU(THCHNICAL)]

1. Remocon touch panel test
2. Version check
3. Error log
4. Format FLASH drive
5. Erase APL-file in FLASH
6. Clear backup memory
7. GPS backup data clear
8. GYRO SENSOR INFO data clear
9. Port status information

==> next page

SYSTEM Ver. : [BOOT] 0.65 [OS] 0.65

No.	Inspection item	Outline of inspection	Content if inspection
1	Remocon touch panel test	Remote controller touch panel inspection	Calibration setting and remote controller inspection are performed.
2	Version check	Version information check	Display of various version information. (system software, GPS, system microprocessor, microprocessor for mechanism control, microprocessor for timer). The screen will return to "menu" by BACK key.
3	ERROR log	Error history entry	History of system software errors stored in SRAM is displayed. Maximum 8 events from the error last occurred can be displayed. The screen will return to "menu" by BACK key.
4	Format FLASH drive	FLASH format	FLASH domain used by the system soft is initialized. When the job is done, the screen will return to "menu".
5	Erase APL-file in FLASH	Application file inside FLASH is clear	Application file inside FLASH is clear. *(Except voice data and SRAM backup variable) When the job is done, the screen will return to "menu".
6	Clear backup memory	Back up variables initialization	SRAM domain used by the system software is initialized. When the job is done, reboot action will be taken.
7	GPS backup data clear	GPS back up data clear	SRAM domain used by GPS is initialized. When the job is done, the screen will return to "menu".
8	GYRO SENSOR INFO data clear	Learned data inside gyro sensor is clear	Learned data inside gyro sensor is cleared. When the job is done, the screen will return to "menu".
9	Port status information	Port status display	Port status is displayed. (reverse, parking, pulse, SDRAM capacity.)



# TESTMODE MENU [SERVICE\_MENU(THCHNICAL)]

1. Change to display error [Message]
2. Start within debug shell [On]
3. Program loading [Version up]
4. GPS assessment
5. File maintenance
6. Program forced write

<== back page      ==> next page  
SYSTEM Ver. : [BOOT] 0.65 [OS] 0.65

No.	Inspection item	Outline of inspection	Content if inspection		
1	Change to display error	Switching of error information display	Display setting for error cases. (for debugging) Message/Information (error information) selectable.		
2	Start within debug shell	Switching of debug shell start	Setting for debug shell start. (for debugging) Off (no initial start)/On (initial start) selectable.		
3	Program loading	Switching of program loading	Recognition method for boot up program write is changed.		
			Disc version (default)	System program	Write when the version No. in the disc is higher.
				System data	Write when the version No. in the disc is higher.
				GPS program	Write when the version No. in the disc is higher.
				Application program	Write when the version information is different from the one in disc.
			Version upgrade (for debug)	System program	Write when the version No. in disc or card is higher.
				System data	Write when the version No. in disc or card is higher.
				GPS program	Write when the version No. in disc or card is higher.
				Application program	Write when the version No. in disc or card is higher.
4	GPS assessment	GPS assessment system start	GPS assessment system can be used. The system will return to "menu" by BACK key.		
5	File maintenance	File maintenance function	File maintenance operations are made. Formatting of SRAM drive and PC card (ATA Flash Card) are made. SRAM data is retrieved and copied to PC card. Data retrieved from SRAM is copied to SRAM from PC card.		
6	Program forced write	Program forced write	Rewriting of SYS (system), GPS (GPS) and APL (application) software are done by force. (Joystick is used) The system will return to "menu" by BACK key.		



# TESTMODE MENU [SERVICE\_MENU(THCHNICAL)]

1. SRAM / SDRAM test
2. SENSOR test
3. CD-ROM reading test
4. RGB test
5. MS3 check
6. Region code

<== back page      ==> next page  
SYSTEM Ver. : [BOOT] 0.65 [OS] 0.65

No.	Inspection item	Outline of inspection	Content if inspection
1	SRAM/SDRAM test	Memory inspection	SRAM : Device inspection and bus inspection are performed against all SRAM domains. Data will be protected. (applicable to both 32M and 64M)  SDRAM : Device inspection and bus inspection are performed against all SDRAM domains. Data will be protected for both BIOS domain and USER domain. The function for SDRAM all domain inspection will activate by the built-in instruction RAM.
2	SENSOR test	Sensor inspection	G sensor, gyro, power supply voltage and installation condition are displayed. The system will return to "menu" by BACK key.
3	CD-ROM reading test	CD-ROM read test	Inspection for reading by CD-ROM drive is performed.
4	RGB test	Image RGB inspection	RGB inspection (Upper half, 8 colors. Black/blue/red/pink/green/light blue/yellow/white display. Lower half, 3 colors. Red/green/blue.) → red (FULL)→green (FULL)→blue (FULL)→ Switching can be made by [←] and [→] keys. The system will return to "menu" by BACK key.
5	MS3 check	MS3 check [V+R]	MS3 mechanism test mode inspection.
6	Region code	Region code display	Region code display.

## 3. How to select test mode menu

Select a desired menu by [↑] and [↓] keys, and execute by pressing [ENTER] key.  
Pages can be changed by [←] and [→] keys.

## 4. Version information

Version No. for BOOT section = X.XX    System software does not exist in SDRAM.  
Version No. for BOOT section = X.XX    Version No. for SDRAM = Y.YY

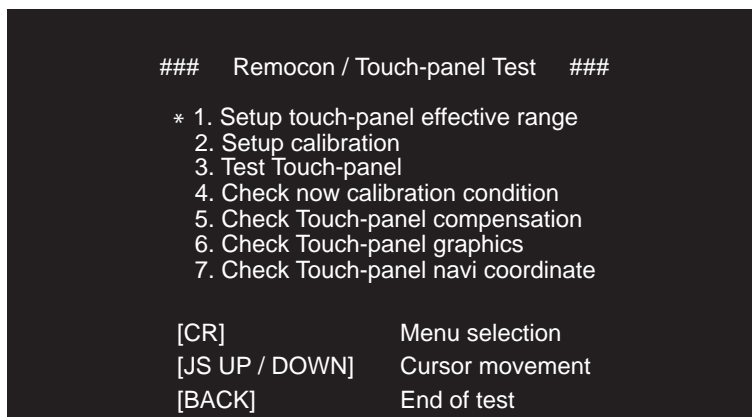


## ● Remocon touch panel test

- How to operate the touch panel test mode is described below.
- First, "1. Setup touch-panel effective range" in the touch panel test menu is made.
- Next, "3. Test Touch-panel", and if the result is OK, then EXIT the screen.
- If the result is NG, conduct "2. Setup calibration", and conduct "3. Test Touch-panel" once again. If the result is OK, then EXIT the screen.
- Furthermore, details of the misalignment can be verified by the "5. Check Touch-panel compensation".

\*) When inspecting the touch panel, use something thin with a round tip such as the touch pen. Furthermore, do not apply excessive force to the touch panel.

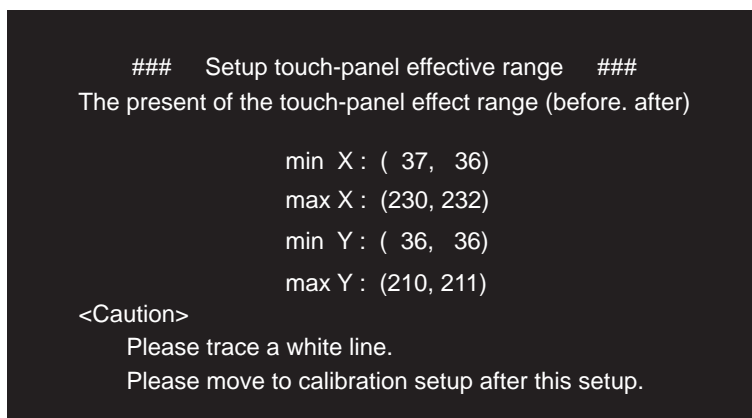
### Main Menu



"\*" mark shown on the left side of menu item "1" indicates that the setting has been completed. The setting items where "\*" is actually indicated will be "1. Setup ~" and "2. Setup ~" only.

[CR] Enter  
[UP/DOWN] Selection of the inspection item  
[BACK] Return (to the test mode menu)

### 1. Setup touch-panel effective range



### Adjustment steps

- 1) Trace the edge of the screen along the monitor resin frame with a round-headed thing to obtain the coordinates.
- 2) Press the [BACK] key.

### Explanation of the displays

min\_x(A,B) : X coordinate of the touch panel • minimum value received  
max\_x(A,B) : X coordinate of the touch panel • maximum value received  
min\_y(A,B) : Y coordinate of the touch panel • minimum value received  
max\_y(A,B) : Y coordinate of the touch panel • maximum value received



A = A coordinate which is already stored in the SRAM (If there is no previous data in the SRAM, "min=90, max=180" will be displayed).

B = An updated coordinate which is planned to be set in the SRAM this time (If there is no previous data in the SRAM, "min=90, max=180" will be displayed).

[BACK] : The preset effective range is registered, and the screen will return to the remote controller inspection menu. The data of the effective range will be recorded in the SRAM.

In case the compensation value is not preset in the SRAM, the following initial (default) value will be entered automatically at the time of navigation system boot up.

min\_x = 42 (right edge limit value)

max\_x = 246 (left edge limit value)

min\_y = 49 (bottom edge limit value)

max\_y = 238 (top edge limit value)

## 2. Setup calibration

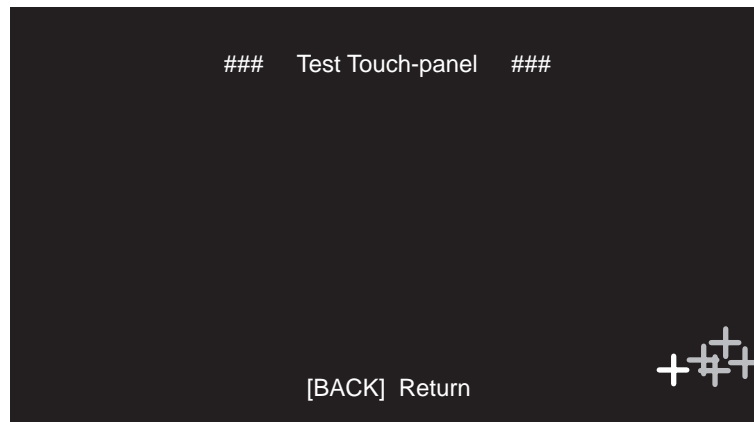


### Explanation

- A [+] cursor is displayed at 16 locations on the screen for calibration. Finally, verification of a single point is made. The cursor is always displayed at one location only, and moves on to the next location as the current one is correctly pressed.
- When pressing on the [+] cursor, make sure to press at the center of "+".
- The result of calibration will be recorded in the SRAM.
- If effective operation is not made for 30 seconds, the system will recognize as "erroneous end" and stops the calibration.



### 3. Test Touch-panel

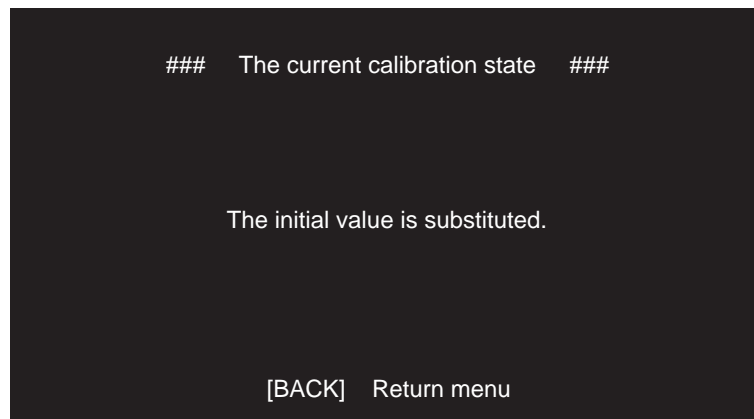


Explanation on touch panel misalignment verification test.

- 1) The test is intended to verify if the touched point on the touch panel is correctly recognized or not.  
 [+] cursor will be displayed at 16 locations on the screen.  
 The cursor will be displayed in "white color" only one at a time.  
 Each time the cursor is touched correctly, the next point will be displayed.  
 On the other hand, if it is recognized that the point touched was  $\pm 4$  dots vertically and  $\pm 5$  dots horizontally away from the center of the displayed [+] cursor, the erroneously recognized coordinate [+] will be drawn in "red color".
- 2) When touching the [+] cursor, touch the center of the + mark correctly.
- 3) If [BACK] is touched, the test will be finished, and the screen will return to the menu screen of the touch panel test mode.

If this test turns out to be NG, it will be necessary to redo "1. Setup touch-panel effective range" and "2. Setup calibration". Repeat the above steps once again.

### 4. Check now calibration condition



Explanation on the setting status of the calibration compensation value.

The current calibration compensation status is displayed.

The following data will be displayed.

"With no calibration value" (in white characters)

In case the compensation value does not exist in the SRAM.

"The effective range value is stored"

In case the compensation value for the upper limit and the lower limit are preset in the SRAM.

"The calibration compensation value is stored"

In case the calibration compensation values for the 16 points are preset in the SRAM.

"The effective range & calibration value is stored."

In case the upper limit and the lower limit values and the 16 points calibration values are preset in the SRAM.

"The initial value is substituted."

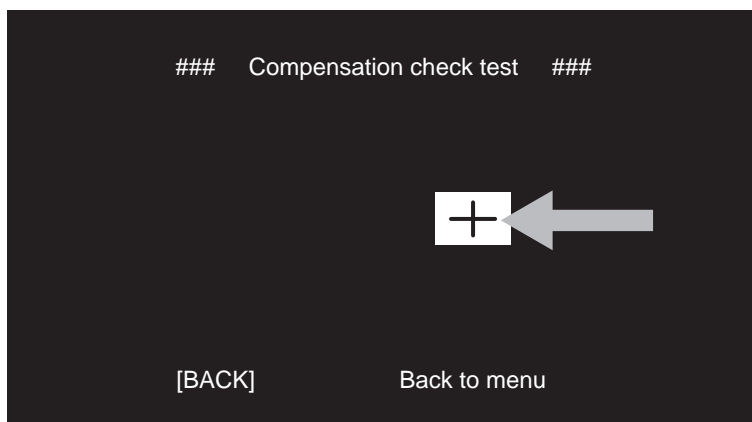
In case the value stored as the initial (default) value is preset in the SRAM.

"Error Condition"

In case the SRAM value is demolished or some unexpected situation is happening.



## 5. Check Touch-panel compensation



[BACK] : The system will return to the remote controller inspection menu.

Explanation of the inspection details

- Regarding this inspection, the title only will be displayed at the initialized stage.
- As shown by the arrow, press any desired location on the monitor.
- A coordinate after the calibration correction will be displayed by the [+] mark against the coordinate recognized as pressed.

## 6. Check Touch-panel graphics

###	Touch-panel coordinates test ###
	Cross drawing dot : ( 79, 80) From system CPU : ( 0, 0) Coverision effective : ( 0, 0) After calibration : ( 0, 0)
[POSITION + ]	Display of the cood nates pushed
[BACK]	Return menu

[NAVI] + pressing the touch panel : The coordinate of the touch panel at that time will be displayed.

[↑] : Horizontal line will move upward.

[↓] : Horizontal line will move downward.

[←] : Vertical line will move to the left.

[→] : Vertical line will move to the right.

[BACK] : The system will return to the remote controller inspection menu.

Explanation of the displayed coordinate (from top to bottom)

(79, 80) : Coordinate of the crossing point by the vertical and the horizontal lines (X direction, Y direction).

[(0~500, 0~240)]

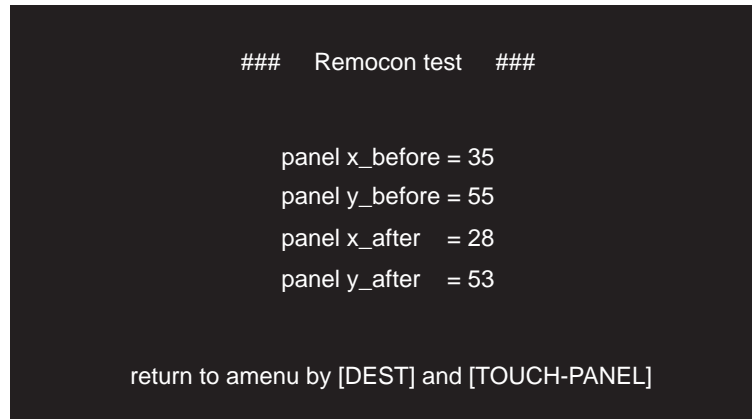
(0, 0) : AD data value (X direction, Y direction) representing the coordinate of the pressed location received from the system control microprocessor.

(0, 0) : Coordinate (X direction, Y direction) obtained by normalizing the AD data value of the pressed location within the effective range.

(0, 0) : Coordinate (X direction, Y direction) obtained by adding the correction based on calibration to the normalized coordinate.



## 7. Check Touch-panel navi coordinate



[BACK] + pressing the touch panel will make the system return to the remote controller inspection menu.

Explanation of the displayed content.

panel x\_before : X coordinate normalized (expanded) within the effective range.

panel y\_before : Y coordinate normalized (expanded) within the effective range.

panel x\_after : X coordinate obtained by adding the correction based on calibration.

panel y\_after : Y coordinate obtained by adding the correction based on calibration.



# ● Version check

VERSION INFORMATION		
1. System boot version	[	1.02 ]
2. System OS version	[	1.02 ]
3. System date version	[	0.90 ]
4. GPS program version	[	0.50 ]
5. Application version	[	0.040000 ]
6. Syscom version	[	8.07 ]
7. TV ucom version	[	8.02 ]
8. Drive core version	[	8.02 ]
9. Drive apl version	[	8.08 ]
10. Drive atapi version	[	NON ]
Return = [BACK]		

Item	Content	Information display	File name
1 System boot version	Version information of the system software BOOT section (FLASH) is displayed.	[**.**]→Version information of the system software BOOT section.	PL030BOT.PRG
2 System OS version	Version information of the system software OS section (FLASH) is displayed.	[**.**]→Version information of the system software OS section. [NG]→System program does not exist.	PLO30SYS.PRG
3 System data version	Version information of the system software data section (SDRAM) is displayed.	[**.**]→Version information of the system software data section. [NG]→System data do not exist.	PLO30SYS.DAT
4 GPS program version	Version information of the GPS program (DRAGON) is displayed.	[**.**]→Version information of the GPS program. [NG]→GPS program does not exist.	PLO30GPS.PRG
5 Application version	Version information of the application program (SDRAM) is displayed.	[**.**]→Version information of the application program. [NG]→Application program does not exist.	PLO30APL.PRG
6 Syscom version	Version information of the system microprocessor is displayed.	[**.**]→Version information of the system microprocessor. [NG]→Communication with the system microprocessor has not been established.	
7 TV ucom version	Version information of the microprocessor for TV is displayed.	[**.**]→Version information of the microprocessor for TV. [NG]→Communication with the microprocessor for TV has not been established.	
8 Drive core version	Core version information of the microprocessor for mechanism control is displayed (V+R).	[**.**]→Core version information of the microprocessor for mechanism control. [NG]→Communication with the microprocessor for mechanism control has not been established. [NON]→ROM only is for mechanism control.	
9 Drive apl version	Application version information of the microprocessor for mechanism control is displayed (V+R).	[**.**]→Application version information of the microprocessor for mechanism control. [NG]→Communication with the microprocessor for mechanism control has not been established. [NON]→ROM only is for mechanism control.	
10 Drive atapi version	Version information of the microprocessor for mechanism control is displayed (ROM only).	[**.**]→Version information of the microprocessor for mechanism control. [NG]→Communication with the microprocessor for mechanism control has not been established. [NON]→V+R mechanism control.	



● Error Information

1. Error Information

Descriptions of error information, for errors arising from system software problems, will be provided in this section.

Up to eight sets of information, related to the system software’s errors, will be stored in the SRAM.

By executing hi\_sysdwn( ) the line number (on which the error occurred), the error code and detailed information of the error, will be stored in the error log.

Hi\_sysdwn( ) will be executed in the following two circumstances:

- 1. hi\_sysdwn( ) will be intentionally stored if fatal errors occur with each BIOS.
- 2. If multiple exceptions, fatal exceptions, illegal command codes and trap command errors occur.

2. Error Log's Entry Function

Up to twenty-four sets of information, related to errors starting with the latest error, will be displayed by the error log entry function.

There are two types of error log displays.

The display will vary when the argument provided to hi\_sysdwn( ), depending on whether detailed information (such as program name, version number, creation date, creation time and creator name) exists or not.

- 1. When detailed information exists:

```

** ERROR INFORMATION **

ERCD = 00000028(40)
FILE  = ini_usf.c
LINE  = 510(000001fa)
VERS  = 1.1.1.1
DATE  = 2003/08/08
TIME  = 06:07:26
AUTH  = daisuke

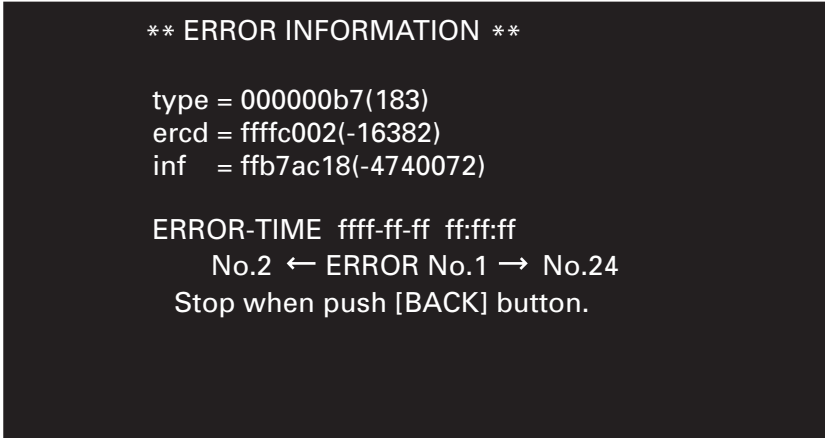
ERROR-TIME ffff-ff-ff ff:ff:ff

No.4 ← ERROR No.3 → No.2
Stop when push [BACK] button.
```

ERCD	Error code.
FILE	Error occurring program name.
LINE	Error occurring program line number.
VERS	Error occurring program version number.
DATE	Error occurring program creation date.
TIME	Error occurring program creation time.
AUTH	Error occurring program creator name.
ERROR-TIME	Error occurrence date and time.



2. When detailed information does not exist:



type	Error occurring program line number.
ercd	Error code.
inf	System down information.
ERROR-TIME	Error occurrence date and time.

If an error occurs due to a multiple exception, the definitions will change to the following:

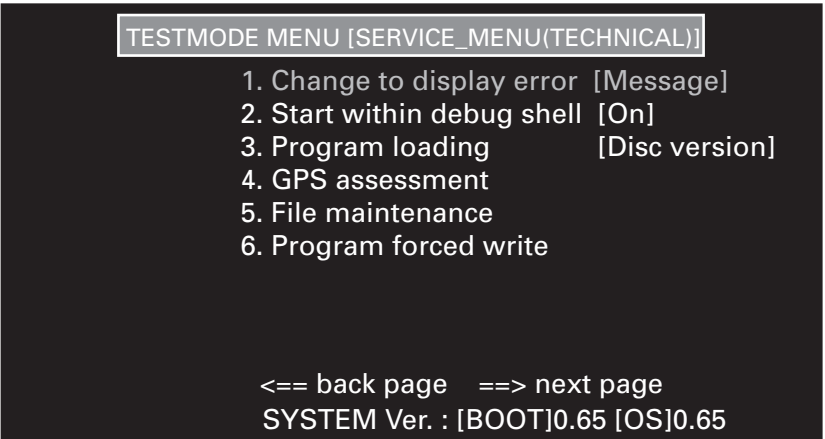
type	Execution address at the time of error occurrence.
ercd	Contributing factor for the exceptions.
inf	Program status word at the time of error occurrence.
ERROR-TIME	Error occurrence date and time.

3. Error Information Switch

The product (with default settings) will display error messages to the user if an error occurs.  
Error information can be displayed if an error occurs by switching the error information in the test mode.  
In either case, the error log entry display will be the same.

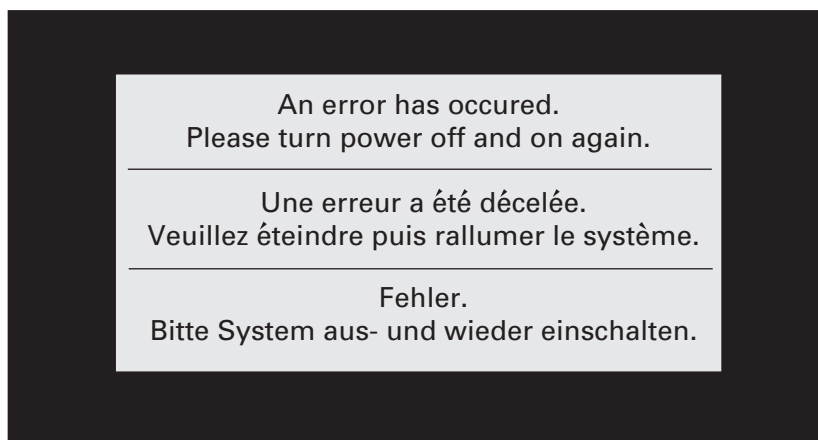
1) Error message display (default settings):

• Setting in the test mode:



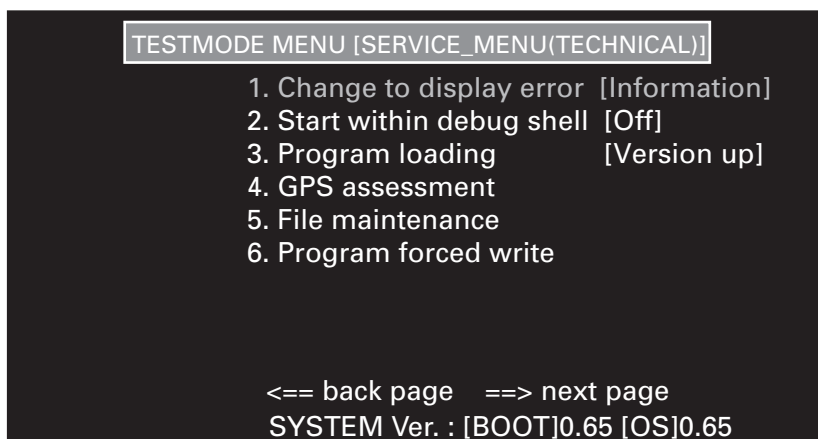


- Display when an error occurs:



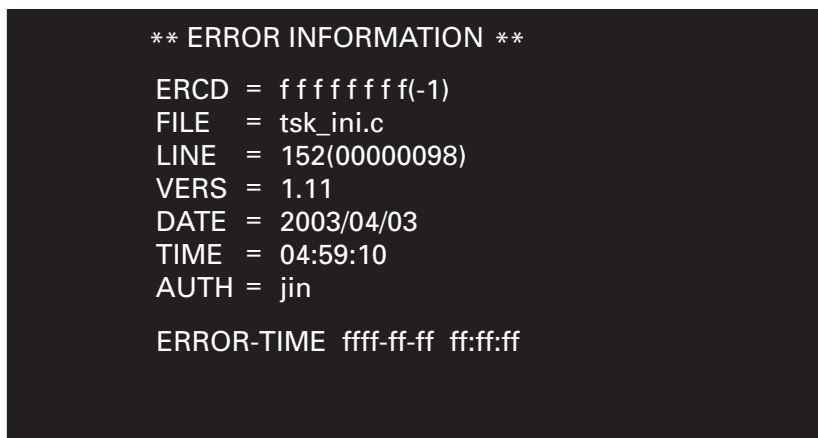
## 2) Error information display

- Settings in the test mode:



Display when an error occurs:

- If error information exists:





- If error information does not exist:

\*\* ERROR INFORMATION \*\*

type = 00000109(265)

ercd = 00000001(1)

inf = ffe83230(-1560016)

ERROR-TIME ffff-ff-ff ff:ff:ff

#### 4. Watch dog timer

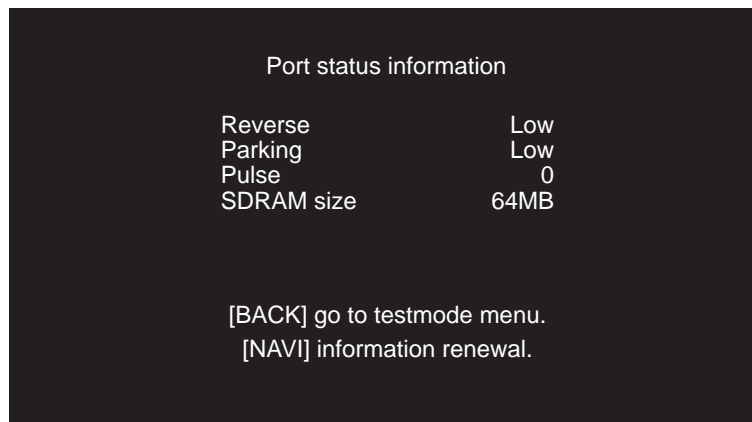
This product has a built-in mechanism to monitor at a certain interval whether the software is correctly operating or not.

Once this mechanism becomes inoperable, "reset request" will be sent to the power supply microprocessor when a preset time (approximately 4 seconds) has elapsed.

In order to record operational situation of such an occasion, a special code which is not an error code is recorded in the ERCD.



## ● Port status information



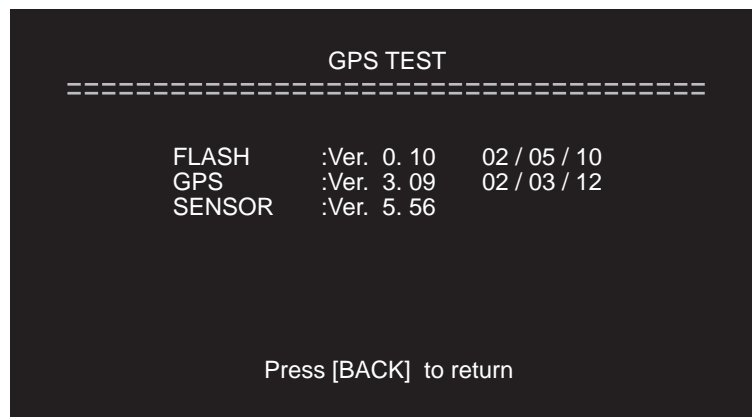
Display	Content of inspection
Reverse	Reverse port status
Parking	Parking port status
Pulse	Pulse status
SDRAM size	SDRAM capacity (32M or 64M)

How to operate.

[BACK] : Return to the test mode menu.

[NAVI] : Update of the port status.

## ● GPS assessment



FLASH	Display of DRAGON FLASH ROM version information.
GPS	Display of GPS version information.
SENSOR	Display of sensor version information.



● SENSOR test

# SENSOR TEST

```
=====
G-SENSOR      :      1.9875 [V]
GYRO          :      2.4804 [V]
POWER         :      14.9453 [V]
FIT UP        :      OK (Best)
DISTANCE      :      SPEED PULSE
LOW SPEED     :      OK
```

Press [BACK] to return

G-SENSOR	Display of G sensor voltage		
GYRO	Display of gyro voltage		
POWER	Display of power supply voltage		
FIT UP	Display of installation status		
	Display	Status	
	• NG	Installation position is NG.	
	• OK	Installation position is OK. (3rd best)	
	• OK (Better)	Installation position is OK. (2nd best)	
	• OK (Best)	Installation position is OK. (Best)	
DISTANCE	Display of distance calculation status.		
	Display	Status	
	• INITIALIZE	Sensor initial learning is under way.	
	• GPS	GPS distance. (Model without G sensor. No pulse connection.)	
	• G-SENSOR	G sensor distance. (simple hybrid.)	
	• ND-PG1	ND-PG1 distance.	
	• SPEED PULSE	Vehicle speed pulse distance.	
LOW SPEED	Display of minimum output speed of a low speed NG vehicle. (Depends on DISTANCE status.)		
	DISTANCE status	SPEED PULSE status	Display
	SPEED PULSE	Low vehicle speed pulse learning is under way.	CHECK
		Low vehicle speed pulse is OK.	OK
		Low vehicle speed is NG.	NG xx[km/h]
	Others		-----



## ● DVD Test Modes

### CAUTIONS

Protection is not operational against a mechanical runaway conditions during servo testing.  
Critical damage can result if the system is allowed to continue in a mechanical runaway state.  
If abnormal noise is heard during the test, turn the power OFF immediately.

Keys used for the DVD test mode

[OK] : Selection decided.

[BACK] : Go back.

Directional keys : [↑ ↓ ← →] keys

[ MS3 X-3016 Test ]

[MS3 X-3016 Test]

Firm Ware Revision.

Core Ver \*\* \*\* Apl Ver \*\* \*\*

[1] FE TestMode

[2] EDC-1 mode

[3] EDC-2 mode

[4] MS3 Memory Clear Start

Press [OK] to make a selection

Press [BACK] to X-3016 Test top

Firm Ware Revision : Version of the drive used.

[1] Start the FE test mode.

[2] EDC1 mode (available for DVDs only).

[3] EDC2 mode (available for DVDs only).

[4] Executes the MS3 memory cleaning operation.

[OK] Executes.

[BACK] Returns to the test mode menu.



# [ X-3016 FE Test menu ]

[X-3016 FE Test menu]  
Status : Power Off    Data : 0000 0000

- [1] Power On
- [2] Disc tipe : DVD 1-Layer
- [3] Disc tipe : DVD 2-Layer
- [4] Disc tipe : CD
- [5] Disc tipe : CD-RW
- [6] Disc Eject

Press [OK] to make a selection  
Press [BACK] - Test top(Power Off)

Status : "Power Off (during normal conditions)."

- [1]        Power On (proceed to servo test 1-0).
- [2]        Disc type : DVD single-layer.
- [3]        Disc type : DVD double-layer.
- [4]        Disc type : CD.
- [5]        Disc type : CD-RW.
- [6]        Ejects the Disc.
- [OK]       Executes.
- [BACK]    Returns to the initial screen display for the test.

# [ X-3016 DVD Test ]

[X-3016 DVD Test] EDC-1

Layer : 0  
ID     : 20 03 0A 63

- [1] Select Layer 0
- [2] Select Layer 1
- [3] Disc Eject

Press [OK] to make a selection  
Press [BACK] to DVD Test top(EDC end)

EDC-1 : Performs consecutive EDC tests.  
EDC-2 : Performs EDC tests for each block.  
ID : Performs ID of the test.

- [1]        Select layer 0.
- [2]        Select layer 1.
- [3]        Ejects the Disc.
- [OK]       Executes.
- [BACK]    Returns to the test mode menu.



## [ X-3016 DVD Test ]

## [X-3016 DVD Test] EDC-1

Layer : 0  
ID : 20 03 0A 63

- [1] cursor right
- [2] cursor left
- [3] cursor up
- [4] cursor down
- [5] Star EDC-1
- [6] Disc Eject

Press [OK] to make a selection  
Press [BACK] to DVD Test top(EDC end)

EDC-1 : Performs consecutive EDC tests.  
EDC-2 : Performs EDC tests for each block.  
ID : Performs ID of the test.

- [1] Moves the cursor to the right by one increment.
- [2] Moves the cursor to the left by one increment.
- [3] Moves the cursor up by one increment.
- [4] Moves the cursor down by one increment.
- [5] Starts the EDC test.
- [6] Ejects the Disc.
- [OK] Executes.
- [BACK] Returns to the test mode menu.

## [ X-3016 DVD 1-Layer Servo. Test(1-0) ]

[X-3016 DVD 1-Layer Servo.Test(1-0)]  
Status : Power On Data : 1000 0000

- [1] Focus Close
- [2] Focus Search(Start/Stop)
- [3] CRG + (Start/Stop) [4] CRG - (Start/Stop)
- [5] (LD-ON->LD-OFF / LD-OFF->LD-ON)
- [6] CRG HOME

FE Offset : 0000 0000 TE Offset : 0000 0000  
AS Offset : 0000 0000 ENV Offset : 0000 0000  
TG Offset : 0000 0000 DBAL : 0000 0000

Press [OK] to make a selection  
Press [BACK] to DVD-1

Test items are basically the same for both DVDs and CDs.

Status : "Power On (during normal conditions)."

- [1] Closes in on the focus (proceed to servo test 2-0).
- [2] Performs a focus search operation (S-curve measurement). Focus operation will then be stopped.
- [3] Moves the carriage (external). The carriage transition operation will then be stopped.
- [4] Moves the carriage (internal). The carriage transition operation will then be stopped.
- [5] Performs LD-ON/OFF operation.
- [6] Returns the carriage to the home position.
- [BACK] Returns to the DVD test menu screen display.

\* This operation will not be performed until the coefficient figures have been received.

\* Focus closing and searching will not operate unless the LD-ON setting is made to less than 9 seconds.



# [ X-3016 DVD 1-Layer Servo. Test(2-0) ]

[X-3016 DVD 1-Layer Servo.Test(2-0)]  
 Status : Focus Closed      Data : 2000 0000

---

[1] T.Bal  
 [2] Focus Jump  
 [3] CRG + (Start/Stop)  
 [4] CRG - (Start/Stop)

---

FE MAX : 0000 0000    FE MIN    : 0000 0000  
 AS MAX : 0000 0000    ENV MAX : 0000 0000  
 FE Normal : 0000 0000  
 TE MAX : 0000 0000    TE MIN    : 0000 0000

---

Press [OK] to make a selection  
 Press [BACK] to DVD-1

Test items are basically the same for both DVDs and CDs.

Status : "Focus Close (during normal conditions)."

- [1]      Adjusts tracking balance (proceeds to servo test 3-0).
- [2]      Performs a focus jump operation.
- [3]      Moves the carriage (external). The carriage transition operation will then be stopped.
- [4]      Moves the carriage (internal). The carriage transition operation will then be stopped.
- [BACK]   Returns to the DVD test menu screen display.

\* This operation will not be performed until the coefficient figures have been received.

# [ X-3016 DVD 2-Layer Servo. Test(3-0) ]

[X-3016 DVD 2-Layer Servo.Test(3-0)]  
 Status : Focus Closed2      Data : 3000 0000

---

[1] Tracking Close  
 [2] CRG + (Start/Stop)    [3] CRG - (Start/Stop)

---

T.Bal(Layer 0) : 0000 0000  
 T.Bal(Layer 1) : 0000 0000  
 TE Normal(Layer 0) : 0000 0000  
 TE Normal(Layer 1) : 0000 0000

---

Press [OK] to make a selection  
 Press [BACK] to DVD-1

Test items are basically the same for both DVDs and CDs.

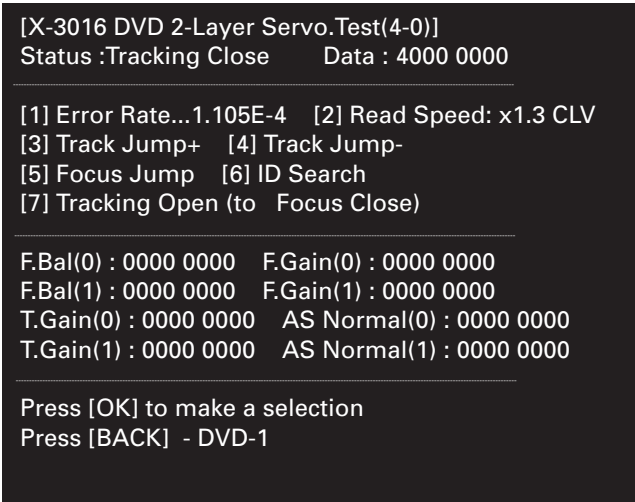
Status : "Focus Close 2 (during normal conditions)."

- [1]      Performs tracking close operation (proceeds to servo test 4-0).
- [3]      Moves the carriage (external). The carriage transition operation will then be stopped.
- [4]      Moves the carriage (internal). The carriage transition operation will then be stopped.
- [BACK]   Returns to the DVD test menu screen display.

\* This operation will not be performed until the coefficient figures have been received.



[ X-3016 DVD 2-Layer Servo. Test(4-0) ]



Test items are basically the same for both DVDs and CDs.

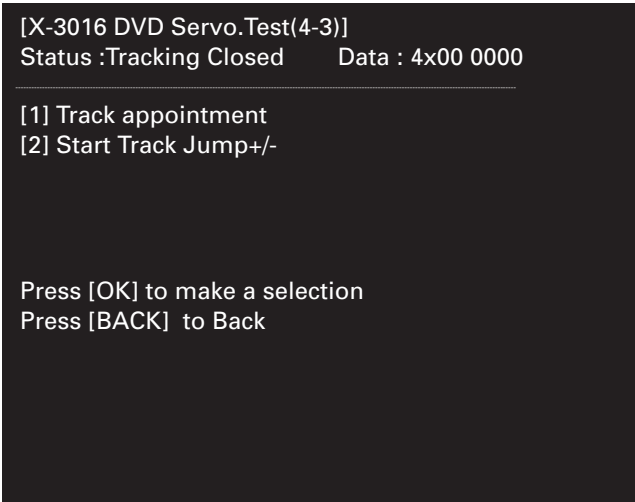
Status : "Tracking Close (during normal conditions)."

- [1] [OK] triggers measurement of the error rates (other operations can not be performed for approximately 10 seconds).
  - [2] [OK] triggers switching of the reproduction speed.
  - [3] Performs track jumping by a designated number of tracks (external).
  - [4] Performs track jumping by a designated number of tracks (internal).
  - [5] Performs a focus jump operation (for DVDs only).
  - [6] Designates an ID (for DVDs only).
  - [7] Performs a tracking open operation (for the focus close status : will proceed to servo test 2-0).
- [BACK] Returns to the DVD test menu screen display.

\* This operation will not be performed until the coefficient figures have been received.

Reproduction speeds			
L0-layer	DVD x 1.3CLV, CD x 2	4000 0000	
L0-layer	DVD x 1CLV	4200 0000	
L1-layer	DVD x 1.3CLV	4100 0000	
L1-layer	DVD x 1CLV	4300 0000	

[ X-3016 DVD Servo. Test(4-3) ]



Test items are basically the same for both DVDs and CDs.

Status : "Tracking Close (during normal conditions)."

- [1] Performs a track number designation (MS3 cyclically switches the available patterns).
- [2] Starts the tracking jump operation (will proceed to servo test 4-0).



## [ X-3016 DVD Servo. Test(4-6) ]

[X-3016 DVD Servo.Test(4-6)]  
Status :Tracking Close      Data : 4A00 0000

- [1] ID appointment : 0000 0000
- [2] cursor right
- [3] cursor left
- [4] cursor up
- [5] cursor down
- [6] Start ID Search

Press [OK] to make a selection  
Press [BACK] to Back

Available for DVDs only.

Status : "Tracking Close (during normal conditions)."

- [1] Displays designated ID.
- [2] Moves the cursor to the right by one increment.
- [3] Moves the cursor to the left by one increment.
- [4] Moves the cursor up by one increment.
- [5] Moves the cursor down by one increment.
- [6] Starts the ID search operation (return to servo test 4-0).

## Display data of adjustment value

FE Offset	FE offset coefficient	0000 0000[h] - FFFF FFFF[h]
TE Offset	TE offset coefficient	0000 0000[h] - FFFF FFFF[h]
AS Offset	AS offset coefficient	0000 0000[h] - FFFF FFFF[h]
ENV Offset	ENV offset coefficient	0000 0000[h] - FFFF FFFF[h]
TG Offset	TG offset coefficient	0000 0000[h] - FFFF FFFF[h]
DBAL	DBAL offset coefficient	0000 0000[h] - FFFF FFFF[h]
FE MAX	FE MAX level	0000 0000[h] - FFFF FFFF[h]
FE MIN	FE MIN level	0000 0000[h] - FFFF FFFF[h]
AS MAX	AS MAX level	0000 0000[h] - FFFF FFFF[h]
ENV MAX	ENV MAX level	0000 0000[h] - FFFF FFFF[h]
FE Normal	FE normalize coefficient	0000 0000[h] - FFFF FFFF[h]
S.Gain	Spindle gain coefficient	0000 0000[h] - FFFF FFFF[h]
T.Bal (layer-0)	TBAL coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
T.Bal (layer-1)	TBAL coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
G.Bal (layer-0)	GBAL coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
G.Bal (layer-1)	GBAL coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
TE Normal (layer-0)	TE normalize coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
TE Normal (layer-1)	TE normalize coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
F.Bal (layer-0)	FBAL coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
F.Bal (layer-1)	FBAL coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
F.Gain (layer-0)	Focus gain coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
F.Gain (layer-1)	Focus gain coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
T.Gain (layer-0)	Tracking gain coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
T.Gain (layer-1)	Tracking gain coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
AS Normal (layer-0)	AS normalize adjustment value (layer-0)	0000 0000[h] - FFFF FFFF[h]
AS Normal (layer-1)	AS normalize adjustment value (layer-1)	0000 0000[h] - FFFF FFFF[h]



## 6.8 USING THE TEST DISC

TEST DISC Part No. : GGV1137

REMOTE CONTROLLER Part No.

Part No.	Description
CXB7427	Co-packed remote controller with AVIC-8DVD/EW
CXB7426	Co-packed remote controller with AVIC-9DVD/EW, UC
CXB9118	Co-packed remote controller with AVIC-8DVD-2/EW, -9DVD-2/EW, -90DVD/UC
CD-R11	Optional remote controller

### 1. Start/End

#### 1-1. Start

When the test disc is inserted, the title “NN622/NN623 TEST DISC” will be displayed.

If [RETURN] key is pressed while the title is being displayed, the menu screen will be displayed. If no key is pressed, the first screen of the inspection screen for line will be displayed.

Title screen



#### 1-2. End

No action is taken.

### 2. Key operation

- In the case of inspection screen for line

1. The inspection screen and the menu screen can be switched alternately using the [CR] key on the remote controller.
2. The screen will go back to the previous screen by the [↑] key on the remote controller.
3. The screen will move forward to the next screen by the [↓] key on the remote controller.  
(Unless the inspection is finished, the screen will not move forward. The screen will not move forward, too, if there is an NG item.)

\* Refer to the explanation of each screen for the details.

- In the case of service menu screen

1. Select an inspection item by the [↑] and [↓] keys on the remote controller, and inspection screen will appear when the [CR] key is pressed.
2. When the [RETURN] key on the remote controller is pressed, the screen will go back to the menu screen.

\* Refer to the explanation of each screen for the details.



## Menu screens

## --- Self Test Menu ---

1. External Connection
2. Dual Illumination check
3. Touch Panel check
4. Microphone & Gain control
5. Data Communication (Short)
6. Data Communication (Open)
7. Natural Drawing & Rear View

[CR KEY] The selected menu is started.

## --- Self Test Menu ---

8. VTR In check
9. FM multiplex tuner error
10. GPS Self check
11. Software version display
12. Language Flag setup mode
13. Memory all cleay
14. GPS sensitivity measurement

[CR KEY] The selected menu is started.

## --- Self Test Menu ---

15. Picture RGB check
16. GPS information
17. Sound play
18. File Maintenance mode
19. Picture check
20. Device check(Design engineer only)
21. Memory all clear (for Service)

[CR KEY] The selected menu is started.

## --- Self Test Menu ---

22. BackUp Memory clear
23. -----
24. -----
25. -----
26. -----
27. -----
28. -----

[CR KEY] The selected menu is started.



### 3. Inspection screen

#### 1. Connection check

```

1. Connection check
Illumination signal          ON
Parking brake signal         ON
Reverse gear signal          REV
Car speed signal             0
Gyro                        LEFT << 42374
Gyro voltage                 2.434V OK
delta sigma                 0.6 OK
Battery voltage              12.3V
G sensor                    ++ 58431
G sensor voltage             1.985V OK
delta sigma                 0.6 OK
Remote controller            PRESENT
Mic connect                  ON
[joy stick down] It progresses to the next inspection.

```

- The status of the item indicated in the above figure will be updated every second.
- Set ANTON port to H when starting the inspection and set to L when ending.
- When the gyro is in operation, a BEEP sound will be made when the G sensor is activated.  
Right: 500Hz, Left: 700Hz. Up: 800Hz, Down: 600Hz
- Conditions for moving on to the next inspection
  - Illumination status is changing between ON and OFF.
  - Parking brake status is changing between ON and OFF.
  - Reverse status is changing between NOR and REV.
  - Pulse is changing to a value other than 0/0.
  - Mic connect status is changing between ON and OFF.
- All keys on the main body as listed below have been pressed at least once.

#### Standard value for other items

- GYRO voltage
  - OK:  $2.5 \pm 0.15$
  - USABLE:  $2.5 \pm 0.30$
- GYRO variation
  - OK: Less than 30
- G sensor voltage
  - OK:  $2.5 \pm 0.15$
  - USABLE:  $2.5 \pm 0.30$
- G sensor variation
  - OK: Less than 60

- Only when all the conditions are met, you can move on to the next inspection by the [ $\downarrow$ ] key on the remote controller. It should be noted, however, that you will not be able to move on to the next inspection if there is an error (background color is red) even if the conditions are met.

#### <Supplemental explanation regarding error display>

Displayed message	Details of the error
Structural data error	An error when data cannot be received from A/D converter. Defective device of the A/D converter seems to be the cause. It will also happen in case the vehicle speed pulse cannot be measured. (rare)
No connection to DRAGON	An error when communication with DRAGON cannot be established. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Command error	Time out error for response to BIOS call. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Unknown error	Error due to unknown reason.



## 2. Dual Illumination color check

### 2. Dual Illumination color check

[NAVI] The color of illuminations is changed.  
[joy stick down] It progresses to the next inspection.

- Color switching for dual illumination can be made.
- In the case of UC model, this inspection will not be performed, and the system will move on to the next inspection.
- Color is changed to GREEN/LED by the [NAVI] key on the remote controller.
- Move on to the next inspection by the [↓] key on the remote controller.

## 3. Touch Panel check

- Touch panel inspection must be performed at 16 locations.
- If the coordinate obtained by pressing the white spot is within the effective range, it will be determined as OK, and the next white spot will be displayed.
- If the coordinate obtained is outside of the effective range, it will be determined as NG.
- If all 16 locations turned out to be OK, then this test is considered to be OK.
- If coordinate cannot be obtained in approximately 5 seconds after the white spot is displayed, the inspection is determined as NG.
- Only if the inspection is OK, the inspection will move on to the next step by the [↓] key on the remote controller.



#### 4. Microphone & Gain control check

##### 4. Microphone & Gain control check

Gain level(0-7) 7

REC

[→] raise gain  
[←] lower gain  
[joy stick down] It progresses to the next inspection.

- The voice channel is inspected by recording the voice from MIC input (Lch) on a memory, playing back the recorded data and outputting from the SP.
- Recording of MIC input voice and playback of the recorded data is done at every second. ("1 second recording → 1 second playback" will be repeated during inspection.) "REC" and "PLAY" will be displayed on the screen during recording and play back, respectively.
- Voice channel  
MIC voice input → ADC Lch input → ASIC voice block → Data storage (recorded on the memory)  
Play back of recorded voice data → ASIC voice block → DAC Lch output → SP output
- Operation (remote controller)  
[←] : MIC input gain (PROGGAIN0-2) is lowered.  
[→] : MIC input gain (PROGGAIN0-2) is increased.  
[NAVI] : Muting of ONSEIMUTE signal is switched between ON and OFF by a toggle switch.  
[↓] : Move on to the next inspection.

#### 5. Data Communication (Short Circuit) check (Not for service)

##### 5. Data Communication (Short Circuit) check

Serial I/O #5(for Extension) OK  
Serial I/O #7(for Debug) OK

[joy stick down] It progresses to the next inspection.

- SIO connection short is checked.
- Loop back check is performed on 5CH and 7CH.
- Wait screen is displayed until the checking is completed.
- When [RETURN] key on the remote controller is pressed while the inspection result is being displayed on the screen, inspection will be performed once again.
- Only in the case of OK, you can move on to the next inspection by the [↓] key on the remote controller.



## 6. Data Communication (Open Circuit) check (Not for service)

### 6. Data Communication (Open Circuit) check

Serial I/O #5(for Extension) OK  
Serial I/O #7(for Debug) OK

[joy stick down] It progresses to the next inspection.

- SIO connection open is checked.
- Check is performed on 5CH and 7CH.
- Do not connect anything to the terminal. OK will be indicated under "open" condition.
- Wait screen is displayed until the checking is completed.
- When [RETURN] key on the remote controller is pressed while the inspection result is being displayed on the screen, inspection will be performed once again.
- Only in the case of OK, you can move on to the next inspection by the [↓] key on the remote controller.

## 7. Natural Drawing & Rear View



- Natural image consisting of 256 colors will be drawn on the BG screen.
- ADPCM 1kHz sine wave at the sampling rate of 19kHz will be output for 30 seconds.
- Rear view image will be displayed on the right hand side of the screen.
- GUIDEON terminal will be set to H when entering the screen, and set to L when exiting the screen.
- Volume level can be changed by the [←] and [→] keys on the remote controller. (0 to 9)  
[JPEG file name: ZHITO1.JPEG]  
[Voice file name: A19K01KS.WAV]
- You can move on to the next inspection by the [↓] key on the remote controller.



## 8. VTR check

## 8. VTR check

[joy stick down] It progresses to the next inspection.

- External input image (VTR input image) is displayed and voice is outputted.
- You can move on to the next inspection by the [↓] key on the remote controller.

## 9. FM multiplex tuner error rate measurement

## 9. FM multiplex tuner error rate measurement

Push Back key to go to re-check.

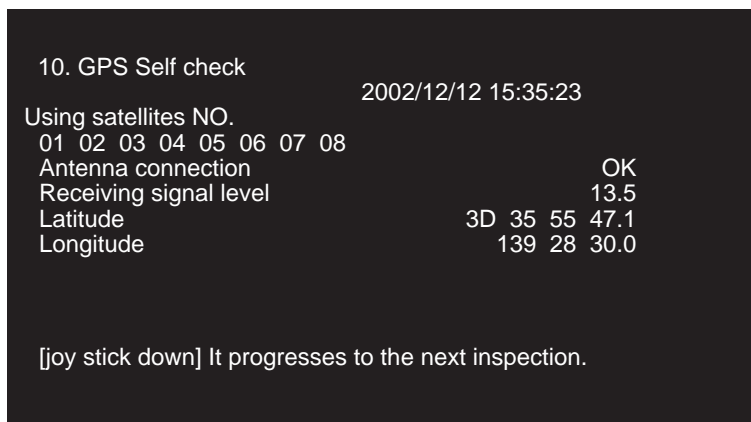
FM Frequency	87.50
Frequency to check	87.50
Blocks Received Correctly	0500
Blocks with one bit corrected	0000
Blocks with two bits corrected	0000
Blocks Received with error	0000

[<- -> to adjust FM frequency]  
[joy stick down] It progresses to the next inspection.

- FM multiplexing error is measured.
- In the case of UC model, this inspection is not performed and the system will move on to the next inspection.
- Default frequency is 87.5MHz.
- When entering this mode for the first time, the result of measurement at the time of test disc boot up will be displayed.
- After the measurement is taken, the frequency can be changed by the [←] and [→] keys.
- 500 blocks will be measured, and if there are 450 or more blocks without error, then it will be determined as OK.
- Only in the case of OK, you can move on to the next inspection by the [↓] key on the remote controller.



## 10. GPS Self check



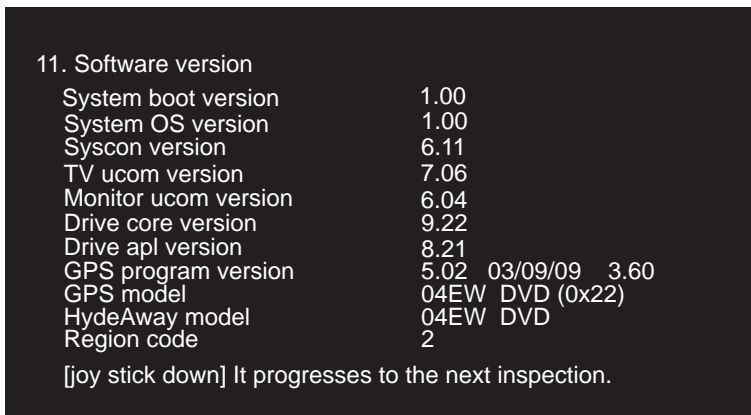
- GPS receiving status will be displayed.
- Conditions to move on to the next inspection.
  - Antenna connection is OK.
  - Data is received from one or more satellite.
  - Time is being displayed.
- When all the conditions are met, the background color will change to blue.
- Only when all the conditions are met, you can move on to the next inspection by the [↓] key on the remote controller.

It should be noted, however, that you will not be able to move on to the next inspection if there is an error (background color is red) even if the conditions are met.

<Supplemental explanation regarding error display>

Displayed message	Details of the error
No connection to DRAGON	This is an error when communication with DRAGON is not established. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Command error	Time out error for response to BIOS call. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Invalid data	This is an error when request is made while the data for response is not prepared (not obtained from DRAGON). Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.

## 11. Software version



- It indicates the version information of the software.
- As for the "GPS model", it will be considered OK if either "04EW DVD" or "04UC DVD" is displayed.
- As for the "Hide away model", it will be considered OK if either "04EW DVD" or "04UC DVD" is displayed.
- As for the region code, it will be considered OK if "2" is displayed in the case of EW model and if "1" is displayed for UC model.
- When "GPS model", "Hide away model" and "region code" are all OK, you can move on to the next inspection by the [↓] key on the remote controller.



## 12. Language selection flag initialize

### 12. Language selection flag initialize

Language selection flag is initialize.

[joy stick down] It progresses to the next inspection.

- When the system enters into this inspection, language selection will be set to the original setting made at the time of shipment (i.e. no setting).
  - \* The setting is made to display the screen for selecting the language to be used at the initial boot up after the shipment out of the factory.
- The setting is made when the system enters into this inspection.
- You can move on to the next inspection by the [↓] key on the remote controller.

## 13. All memory clear (Not for service)

### 13. All memory clear

The clearance of SRAM (application domain)  
The clearance of FLASH (application domain)  
Elimination of a sensor study value

[NAVI] Inspection is performed.

- SRAM (application domain) is cleared.
- FLASH (application domain) is cleared.
- Sensor learning level is cleared.
- If SRAM clear is not successful, FLASH will not be cleared.
- After the inspection screen is displayed, the above process is executed by the [NAVI] key on the remote controller.
- The result of the process is displayed.
- Only when everything is OK, you can move on to the next inspection by the [↓] key on the remote controller.



#### 14. GPS sensitivity measurement

14. GPS sensitivity measurement  
 Satellite NO. 3 [← → to select satellite]  

CH.	Look	SNR(AMU)	SNR(dB)
1	OK	12.3	23.4
2	OK	12.3	23.4
3	OK	12.3	23.4
4	OK	12.3	23.4
5	OK	12.3	23.4
6	OK	12.3	23.4
7	OK	12.3	23.4
8	OK	12.3	23.4
ALL	OK	Sensitivity:	20.4(db)
		DoppRMS:	1.78(Hz)

  
 [joy stick down] Raw work inspection is ended.

- GPS can be changed by the [←] and [→] keys on the remote controller.
- Sensitivity of the selected GPS is displayed by the [RETURN] key on the remote controller.
- Production engineering inspection is ended and service menu is displayed by the [↓] key on the remote controller.

#### <Supplemental explanation regarding error display>

Displayed message	Details of the error
No connection to DRAGON	This is an error when communication with DRAGON is not established. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Command error	Time out error for response to BIOS call. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.

#### 15. Picture RGB check



- RGB bridge is inspected.
- The screen can be switched by the [←] and [→] keys on the remote controller.
- RGB is drawn in the pattern of R 100% → R 50% → G 100% → G 50% → B 100% → B 50%.
- Total of 6 screens will be displayed.



## 16. GPS information

16. GPS information							
0D	T2	H25.5	V25.5	01/03/28 23:05:47			
SV	Azi	Ev	SNR	Flag	Acc	Doppler	SrchW
10	119	39	3.0	UY--	3	-2249	2883
26	25	60	4.9	UYC-	2	-1051	3496
18	310	25	0.0	---m	f	+0	12487
23	305	33	0.0	---m	f	+0	21812
17	317	49	0.0	---m	f	+0	21812
9	196	56	0.0	---m	f	+0	21812
14	260	73	0.0	---m	f	+0	5994
4	142	81	0.0	---m	3	+0	5994
Position Sv Stat Ver & Diag Err Info							

- "Position information" will be displayed when the cursor is at the "Position" position and the [CR] key is pressed on the remote controller.
- "Status information" will be displayed when the cursor is at the "Sv Stat" position and the [CR] key is pressed on the remote controller.
- "Diagnosis information" will be displayed when the cursor is at the "Ver&Diag" position and the [CR] key is pressed on the remote controller.
- "Error information" will be displayed when the cursor is at the "Err Info" position and the [CR] key is pressed on the remote controller.
- When an inspection is performed, "status information" (the screen shown above) will be displayed first.

## 17. Voice play back

17. Sound play	
ADPCM fixation 11K 1K L	
ADPCM fixation 11K 1K mono	
ADPCM fixation 11K 1K R	
ADPCM fixation 11K 1K ste	
ADPCM fixation 19K 1K L	
ADPCM fixation 19K 1K mono	
ADPCM fixation 19K 1K R	
Main fader Vol.[0-15]	6
[-> Vol up, <- Vol down]	
[return] It returns to a menu screen.	

- Voice file (WAVE format) will be played back.
- The voice selected by the [CR] key on the remote controller will be played back.
- Volume level can be changed by the [←] and [→] keys on the remote controller.



## 18. File maintenance

```

18. File maintenance
Totale Capacity : 216.5K Remain : 216.3K
Media:SRAM: Path:
  LOGININFO.CFG 20      84 02 / 08 / 07 17:35
  LOCPOS .DAT 20       68 01 / 01 / 01 21:22
  
```

[1]Media [2]Copy [3]Delete [4]Dump [0]Help

- File can be copied, deleted or dumped.  
Refer to HELP for “how to use” each function.

## 19. Picture check MENU

19. Picture check MENU 1/2

1. Plane
2. Color Bar
3. Cross Hatch
4. Sweep
5. Step
6. Ramp
7. Window
8. Mono Scope
9. Vertical Resolution Column

[Push OK to make a selection]  
[return] It returns to a menu screen.

A pattern is selected by the [↑] and [↓] keys and an image is displayed by the [CR] key.

### 1. Plain

...Display is made in the order of black, blue, red, pink, green, light blue, yellow and white by the [←] and [→] keys operation on the remote controller.

### 2. Color bar

...White, yellow, light blue, green, pink, red, blue, black bars will be displayed from left to right.

### 3. Cross hatch

### 4. Sweep

### 5. Step

### 6. Lamp

### 7. Window

### 8. Mono scope

### 9. Cycle line 1

### 10. Cycle line 2

### 11. Horizontal stripe 1

### 12. Horizontal stripe 2

### 13. Chinese character pattern

### 14. Map (map.jpg)

### 15. Natural image (nature.jpg)

### 16. Portrait 1 (hito1.jpg)

### 17. Portrait 2 (hito2.jpg)



## 20. Device Check

### 20. Device Check

1. SDRAM (0X48000000 - 0X4BFFFFFF)
2. SRAM (0X42000000 - 0X4203FFFF)
3. ASIC (0X43000270 - 0X43000274)
4. ALL Device

[return] It returns to a menu screen.

- The above devices will be inspected for engineering purpose.
- A device is selected by the [↑] and [↓] keys on the remote controller, and cleared by the [CR] key.
- On each device screen, a pattern is selected by the [↑] and [↓] keys on the remote controller, and inspection is started by the [CR] key on the remote controller.

## 21. All memory clear (for Service)

### 21. All memory clear (for Service)

The clearance of SRAM (application domain)  
The clearance of FLASH (application domain)

[NAVI] Inspection is performed.  
[return] It returns to a menu screen.

- SRAM (application domain) is cleared.
- FLASH (application domain) is cleared.
- If SRAM clear is not successful, FLASH will not be cleared.
- After the inspection screen is displayed, the above process is executed by the [NAVI] key on the remote controller.
- The result of the process is displayed.

## 22. Initialization of a backup variable

### 22. Initialization of a backup variable

A backup variable is initialized.

Cautions  
System reset is carried out after initialization.

[NAVI] A backup variable is initialized.  
[return] It returns to a menu screen.

- Back up variables are initialized by the [NAVI] key on the remote controller for system reset.
- The screen will return to the menu screen by the [RETURN] key on the remote controller.



# 7. GENERAL INFORMATION

## 7.1 DIAGNOSIS

### 7.1.1 DISASSEMBLY

#### ● Removing the Grille Assy (Fig.1)

- ➡ 1 Remove the two screws and then remove the Holder.  
Disconnect the connector.
- ➡ 2 Remove the two screws and then remove the Grille Assy.

#### ● Removing the Case

- ➡ 3 Remove the five screws.(Fig.1)
- ➡ 4 Remove the screw and then remove the Case.(Fig.1)

Note) Inside the product there is a flexible substrate that connects the Case and the Bracket.  
Be very careful and do not give it a strong pull when removing the Case, otherwise it may be torn.

- ➡ 5 Remove the four screws. (Fig.2)

Disconnect the connector and then remove the Bracket. (Fig.2)  
Remove the Case.(Fig.1)

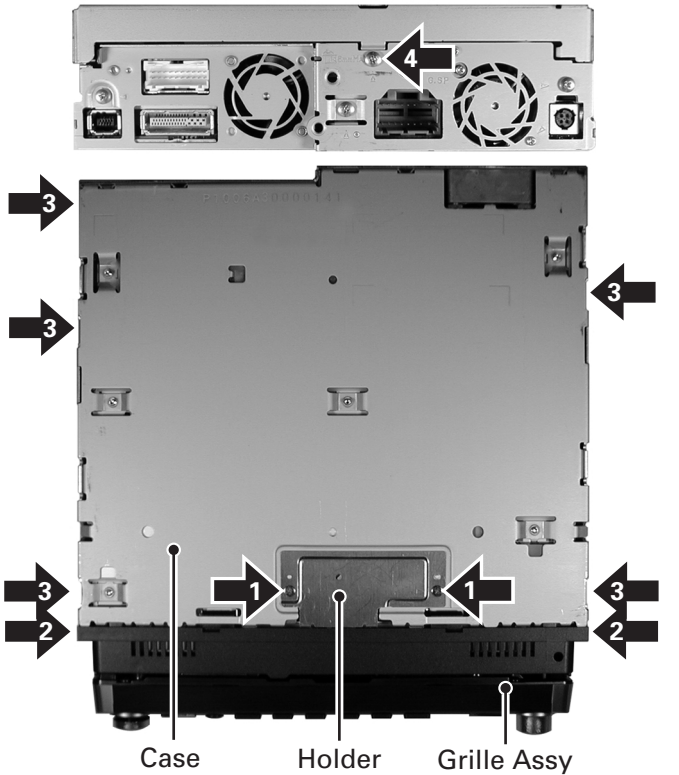


Fig.1

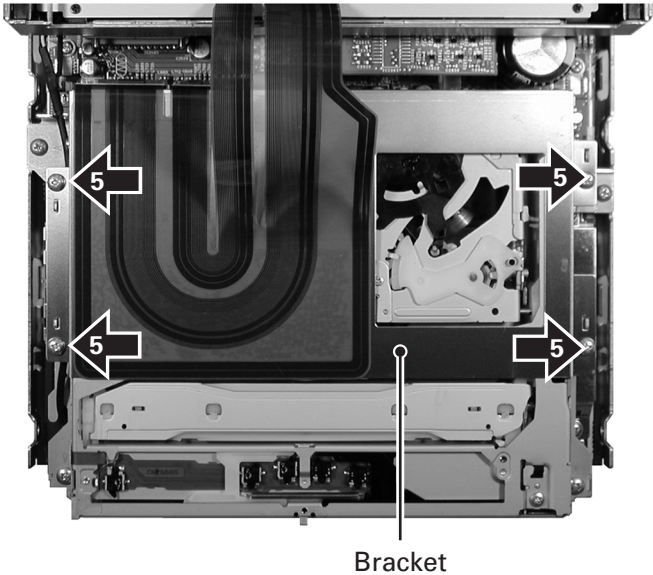


Fig.2



### ● Removing the DVD Mechanism Module (Fig.3)

- ➡ **1** Remove the four screws.

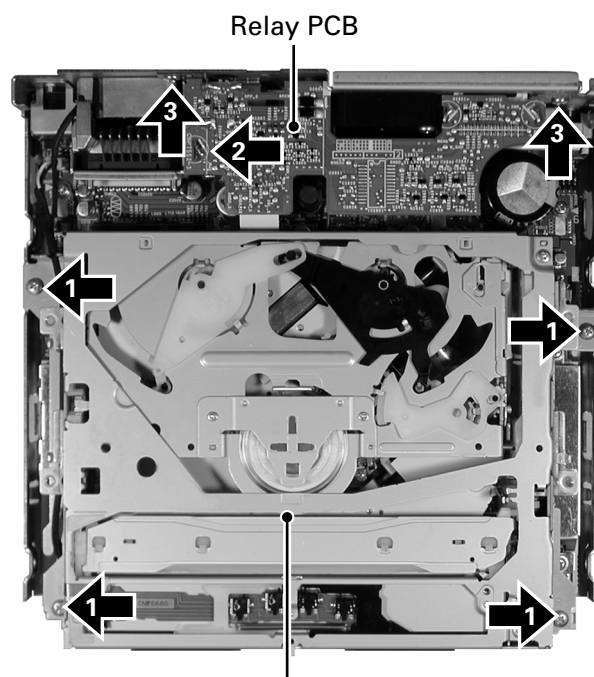
Disconnect the connector and then remove the DVD Mechanism Module.

### ● Removing the Relay PCB (Fig.3)

- ➡ **2** Straighten the tab at location indicated.

- ➡ **3** Remove the two screws.

Disconnect the connector and then remove the Relay PCB.

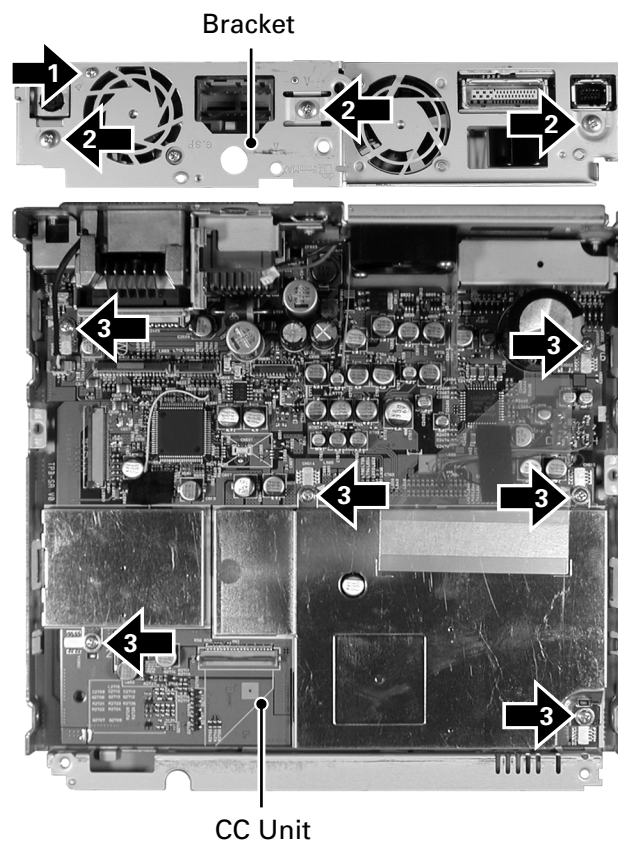


DVD Mechanism Module

Fig.3

### ● Removing the CC Unit (Fig.4)

- ➡ **1** Remove the screw.
- ➡ **2** Remove the three screws and then remove the Bracket.
- ➡ **3** Remove the six screws and then remove the CC Unit.



CC Unit

Fig.4



### ● Removing the Case (Fig.5)

- 1** Remove the two screws and then remove the Holder.
- 2** Remove the screw.
- 3** Remove the five screws and then remove the Case.

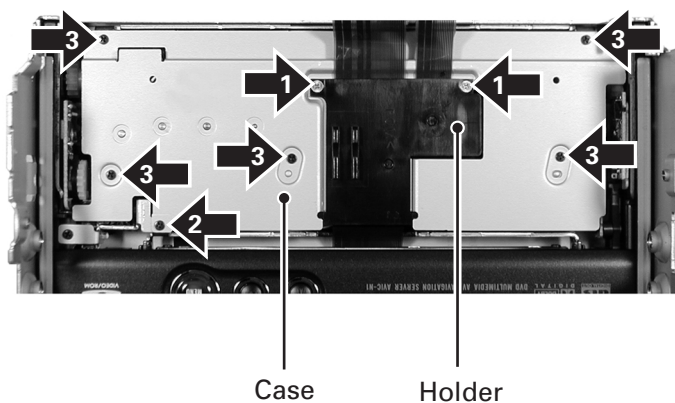


Fig.5

### ● Removing the Display Assy (Fig.6)

- 1** Remove the screw.
- Disconnect the connector and then remove the Motor Unit.
- 2** Remove the two screws and then remove the two Holders.
- 3** Pull out the Display Assy in the arrow indicated direction.

Note) When reassembling, hold the switch down with tweezers or the like and put the Display Assy back to the Chassis. Otherwise, the switch may be damaged and not function properly.

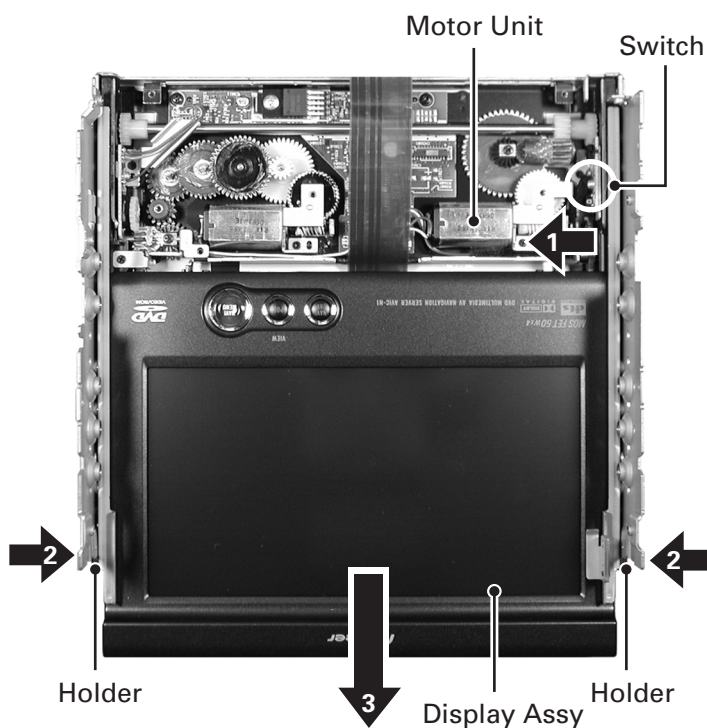


Fig.6

### ● Removing the Main Unit (Fig.7)

- 1** Remove the screw and then remove the Bracket.
- 2** Remove the four screws and then remove the Shaft Unit.
- 3** Remove the three screws.

Disconnect the connector and then remove the Main Unit.

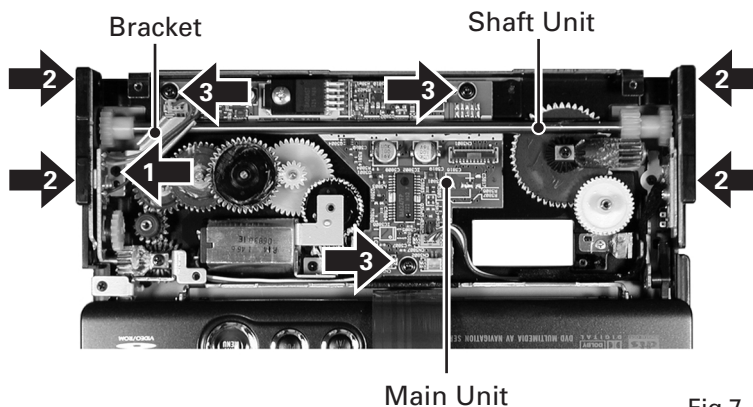


Fig.7



### ● Removing the Display Assy (Fig.8)

- ➡ **1** Remove the two screws and then remove the Holder.
- ➡ **2** Remove the three screws and then remove the Cover Unit.
- ➡ **3** Remove the four screws.

Disconnect the connector and then remove the Display Assy.

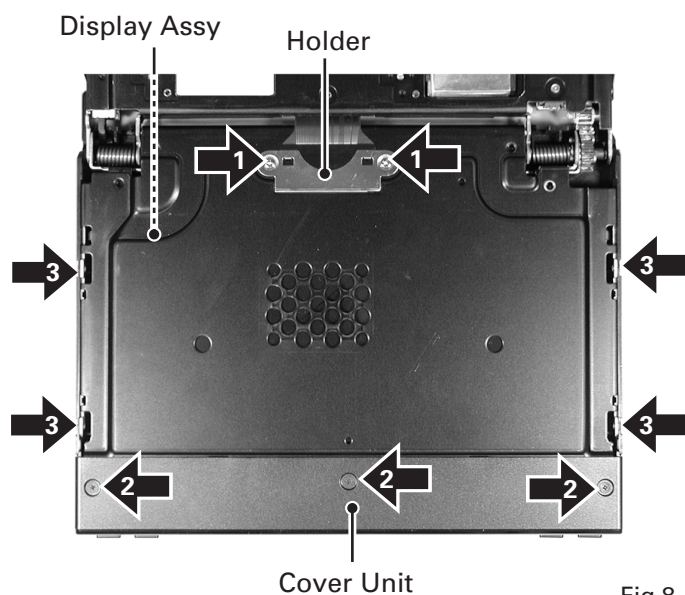


Fig.8

### ● Removing the Monitor PCB (Fig.9)

- ➡ **1** Straighten the tabs at two locations indicated.
- ➡ **2** Remove the screw.

Disconnect the connector and then remove the Monitor PCB.

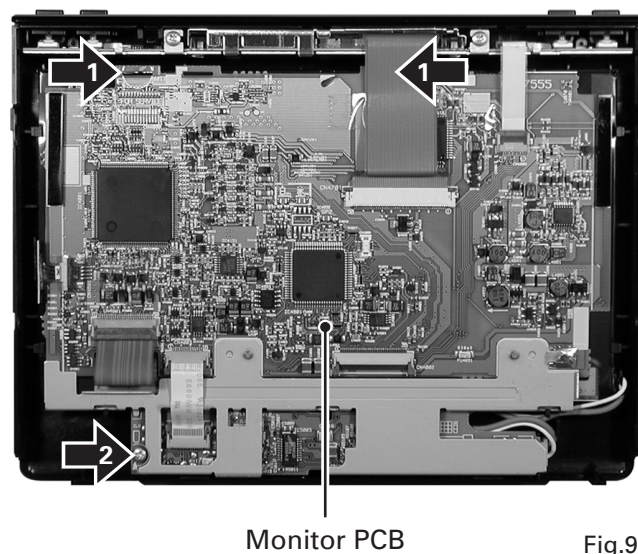


Fig.9



### ● Removing the Case (Fig.10)

- 1** Remove the nine screws and then remove the Case.

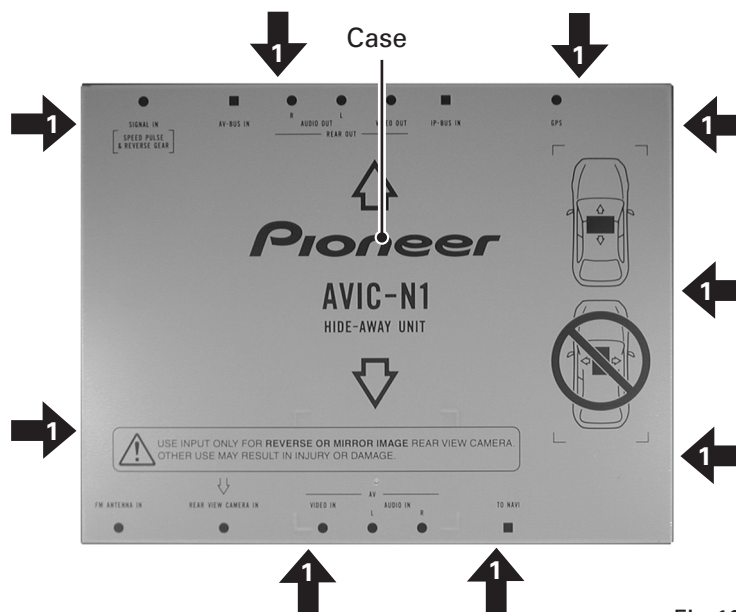
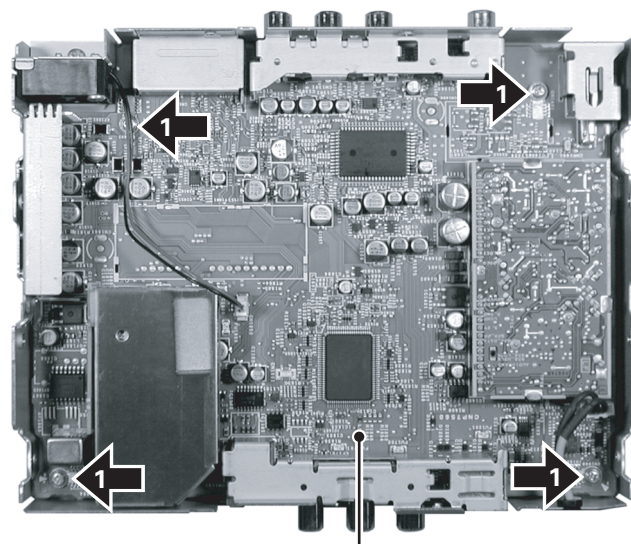


Fig.10

### ● Removing the Mother Tuner Unit (Fig.11)

- 1** Remove the four screws.

Disconnect the connector and then remove the Mother Tuner Unit.



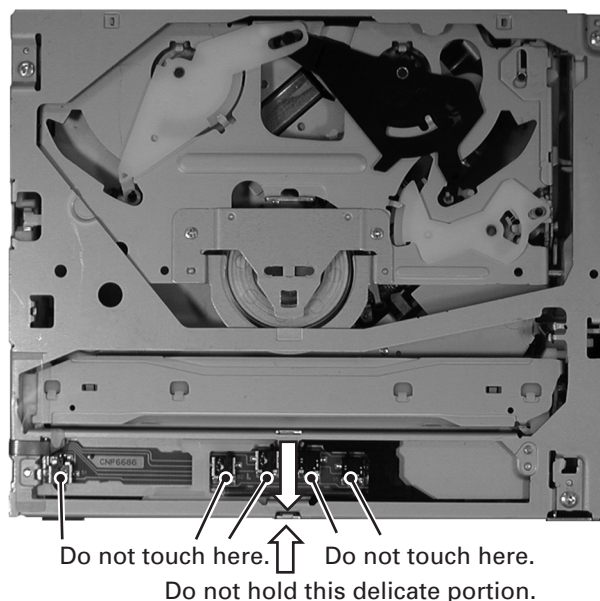
Mother Tuner Unit

Fig.11



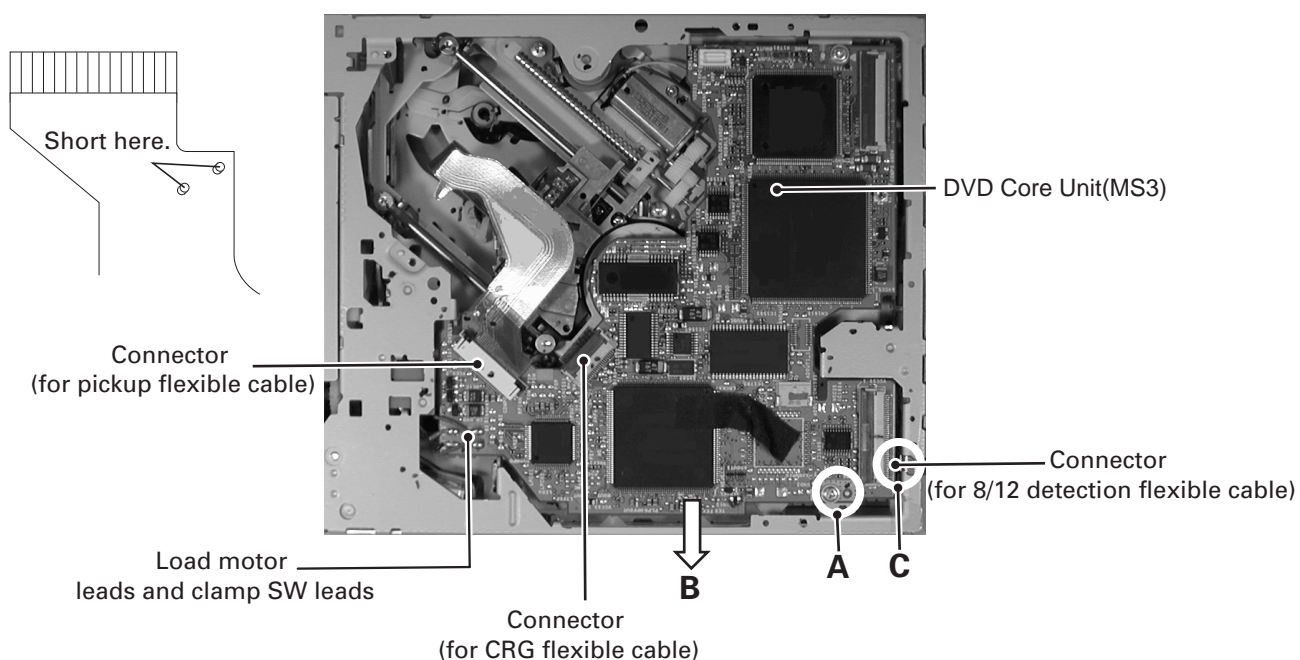
## ● Precautions on handling the mechanism module

1. Hold the upper and main frames.
2. Do not hold the front portion of the upper frame. It is a delicate part.
3. Do not touch the switches on the top panel.
4. Be careful not to catch the flexible cables.



## ● Removing the DVD Core Unit(MS3)

1. Set the mechanism to the lock position (disc load standby position).
2. Place the mechanism module upside down.
3. Short the two lands on the pickup flexible cable as shown below.
4. Be sure to disconnect the pickup flexible cable and the CRG flexible cable from the connectors to protect them from damages.
5. Remove solder from the load motor leads and clamp SW leads.
6. Loosen the two fixing screws. Lift the position A of the DVD Core Unit lightly and move it in the direction B to remove it. Be careful not to damage the flexible cable C.
7. Disconnect the 8/12 detection flexible-cable from the connector.





## ● Removing the Pickup Unit

1. Remove the module pc board in accordance with the procedure of "Removing the module pc board."
2. While holding the pickup case, remove the Skew screw (main).
3. Lifting the end of the pickup rack, slide the main shaft, and remove the Pickup Unit.

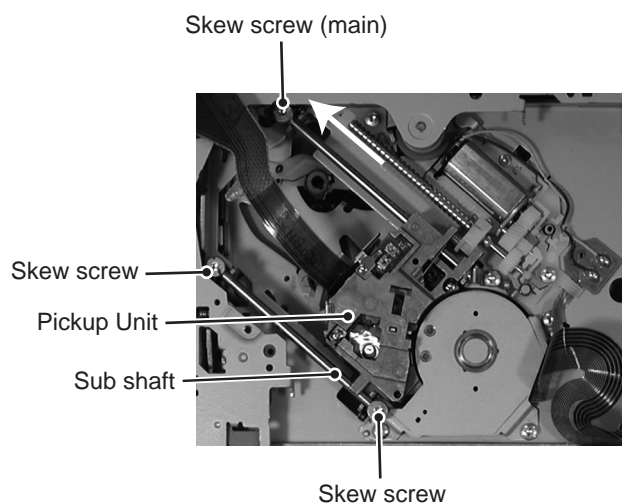
### Notes:

Replacing the pickup unit requires the skew adjustment.

Remove glue from both ends of the main and sub shafts, and skew stud.

Do not reuse the old skew screw. Be sure to use a brand-new skew screw supplied with a new Pickup Unit.

Fix the skew screw with Screw lock (GYL1001) after adjustment.

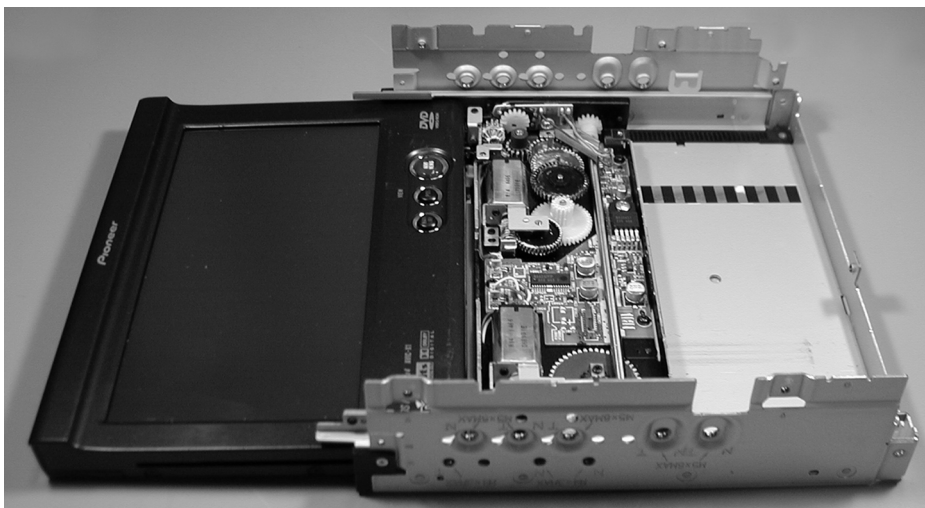




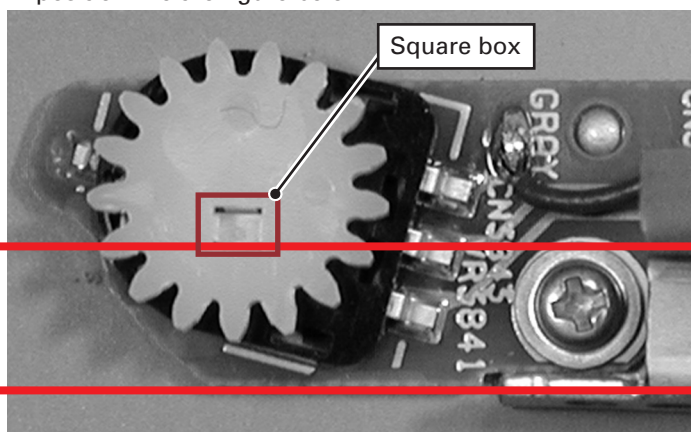
## ● How to install the Volume Unit fo the Drive Unit

When install the Volume Unit, adjust the positioning of the rotating angle of the gear.

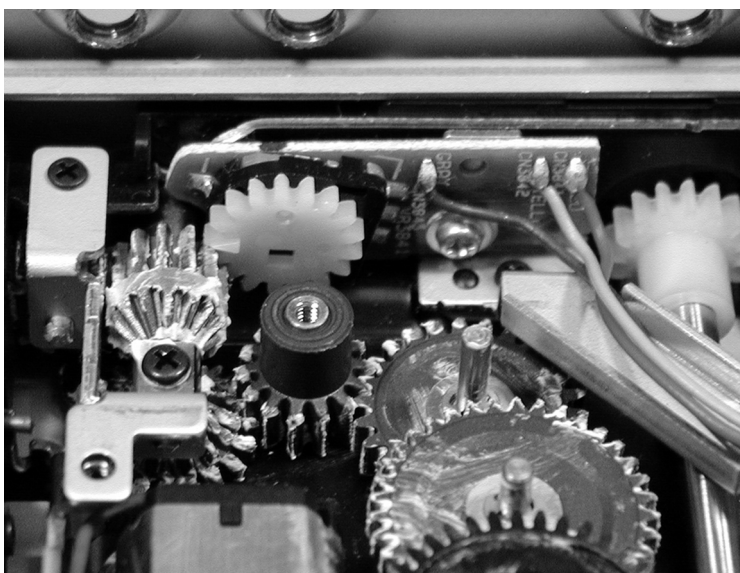
1. Set the Monitor Unit horizontally with the Main Unit of the Drive Unit.



2. When install the gear unit, rotate the gear by hand until the square box of the gear keeps in a horizontal position like the figure below.



\*Gap of one teeth is acceptable.





## 7.1.2 PCB LOCATIONS

A

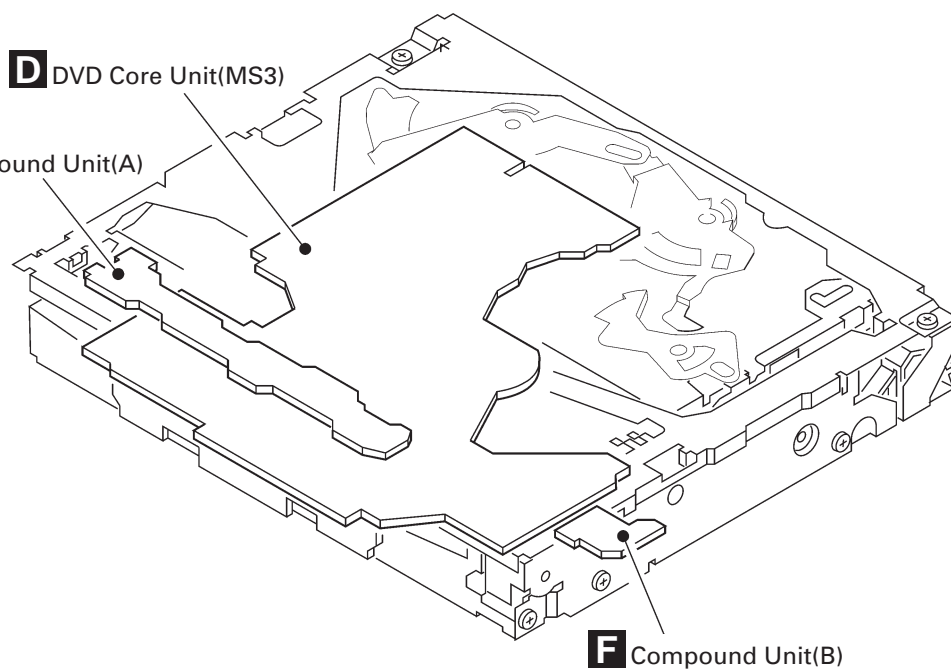
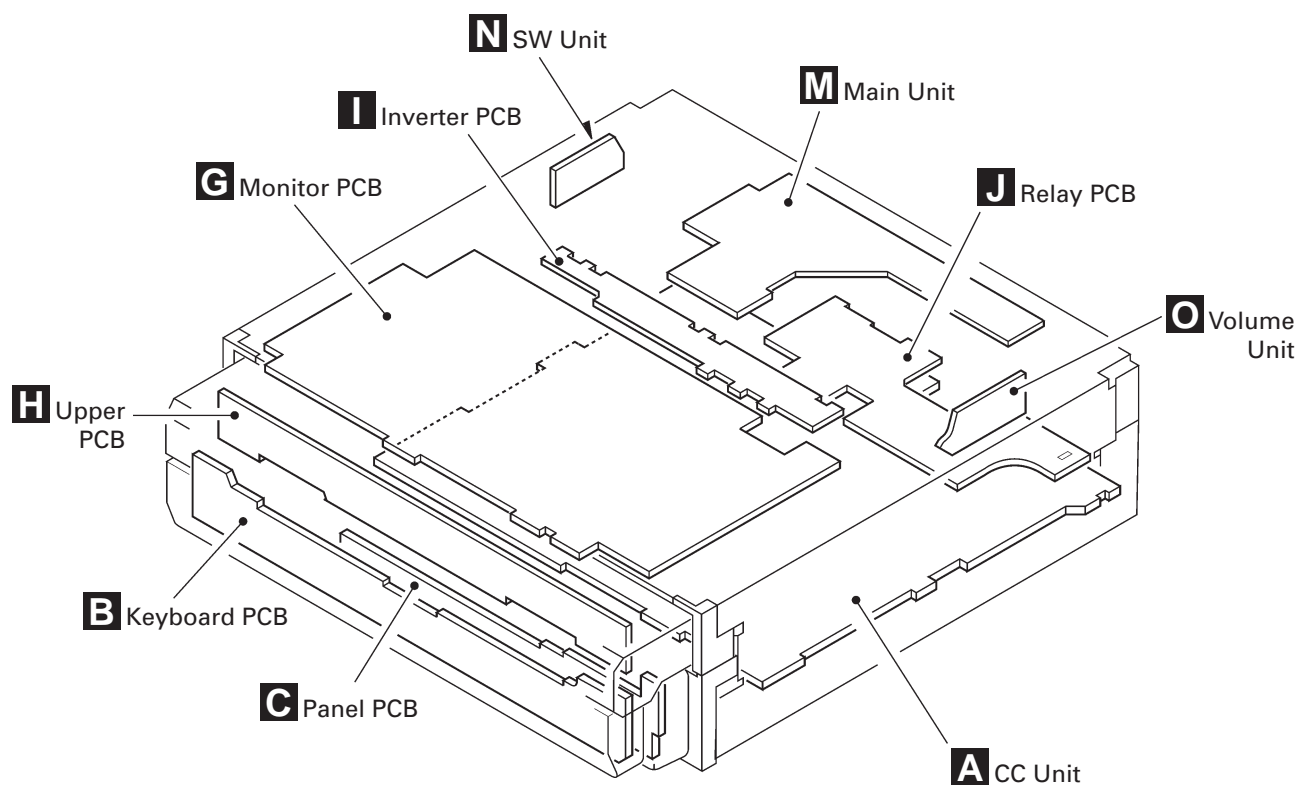
B

C

D

E

F





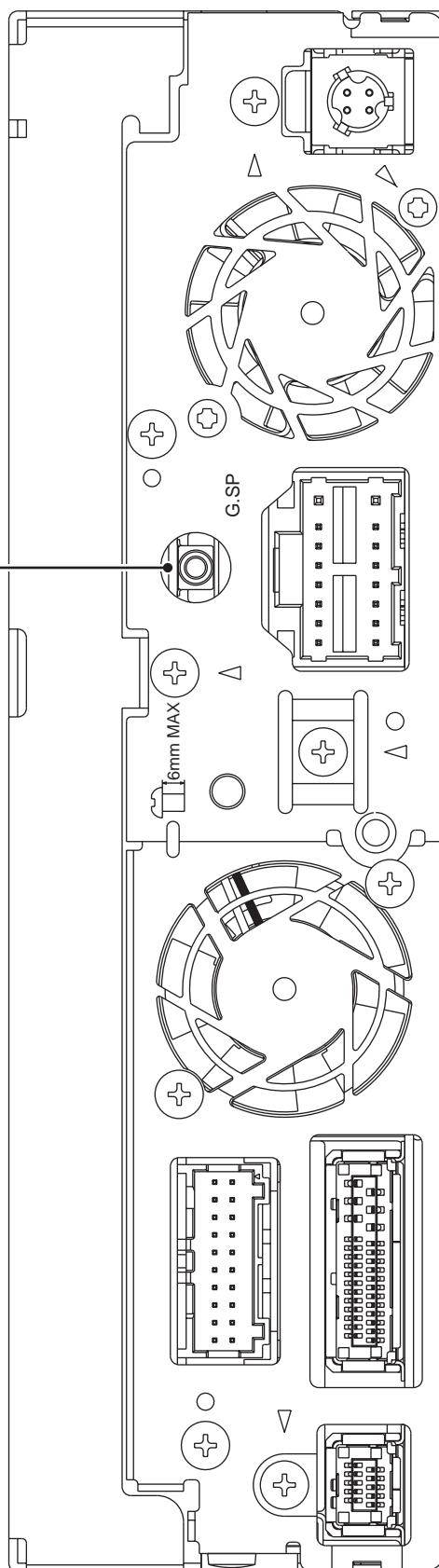
## 7.1.3 CONNECTOR FUNCTION DESCRIPTION

### EXTENSION

20	18	16	14	12	10	8	6	4	2
19	17	15	13	11	9	7	5	3	1

- 1: PRE L
- 2: PRE L GND
- 3: PRE R
- 4: PRE R GND
- 5: RL
- 6: RL GND
- 7: RR
- 8: RR GND
- 9: FL
- 10: FL GND
- 11: FR
- 12: FR GND
- 13: BREM
- 14: WREM SEL
- 15: WREM AN
- 16: WREM GND
- 17: MIC R
- 18: GUIDEON
- 19: MIC L
- 20: MIC GND

### GUIDE SPEAKER OUT



### TELE ATLAS / DEBUG

2	4	6	8	10
1	3	5	7	9

- 1: NC
- 2: NC
- 3: GNDD
- 4: CTOEX
- 5: EXTOC
- 6: HYOKA
- 7: CTOTA
- 8: TATOC
- 9: VTA
- 10: TAGND

### RGB

2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29

- 1: RETR
- 2: RETL
- 3: ISOGND
- 4: SELR
- 5: SELL
- 6: GNDISO
- 7: SELV
- 8: SELVG
- 9: VST
- 10: VDT
- 11: VCK
- 12: CTOGPS
- 13: GPSTOC
- 14: RETV
- 15: VGND
- 16: RQ
- 17: MUTEVOL/SWACPW
- 18: MUTEAMP
- 19: ASENBO
- 20: RESET
- 21: BSNS
- 22: REM
- 23: MTOH
- 24: HTOM
- 25: HTOP
- 26: PTOH
- 27: SWVDD
- 28: FM85
- 29: SWBUP
- 30: GNDFM

### VEHICLE I/F

1	3	5	7	9	11	13	15
2	4	6	8	10	12	14	16

- 1: FL-
- 2: RL-
- 3: FL+
- 4: RL+
- 5: FR-
- 6: RR-
- 7: FR+
- 8: RR+
- 9: P.B.
- 10: VGND
- 11: ACC
- 12: A.ANT
- 13: ILM
- 14: MUTE
- 15: B. UP
- 16: GND

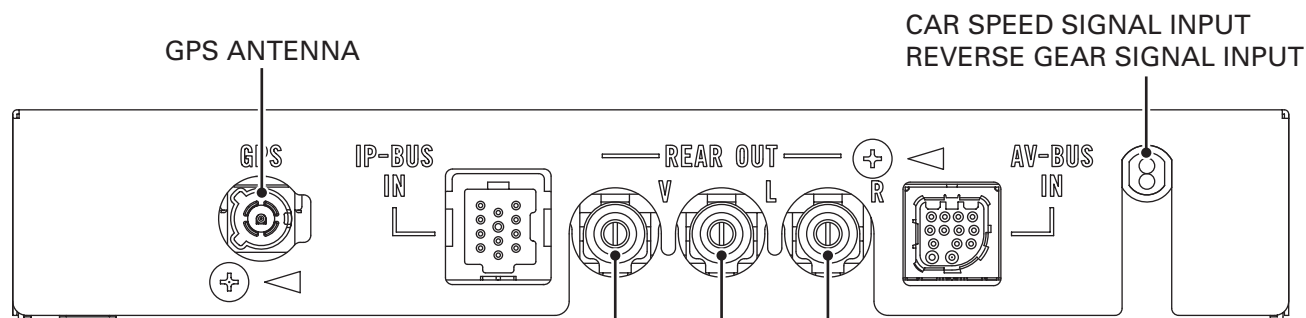
### DIGITAL OUT

20	04
10	03

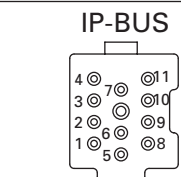
- 1: GND
- 2: GND
- 3: DTEST
- 4: DIGIOUT



A



B



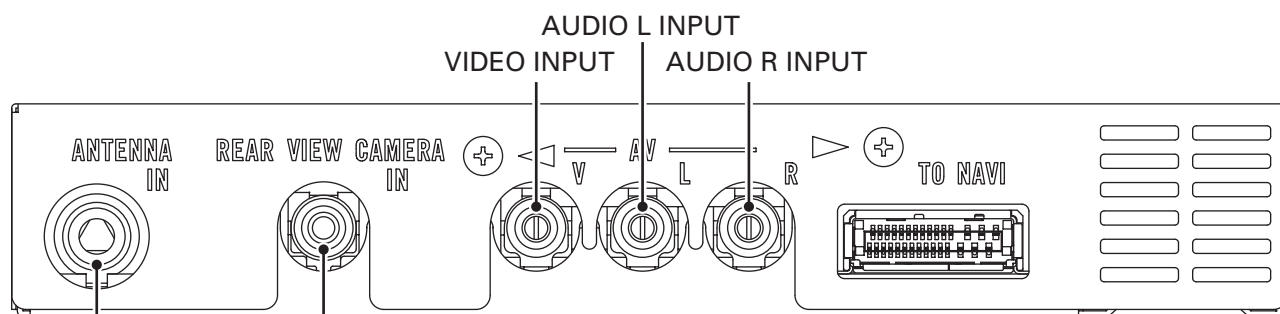
- |         |           |
|---------|-----------|
| 1. BUS+ | 6. BUSC   |
| 2. BUSG | 7. BUSL   |
| 3. LG   | 8. ASEN   |
| 4. NC   | 9. BUSR   |
| 5. BUS- | 10. BUSRG |
|         | 11. BUSLG |

AV-BUS



- |               |                 |
|---------------|-----------------|
| 1. VIDEO GND  | 8. BEEP MUTE    |
| 2. COMP VIDEO | 9. BEEP-        |
| 3. NC         | 10. REMOUT      |
| 4. IP-SEL1    | 11. NEW AV SENS |
| 5. IP-SEL2    | 12. AV ON       |
| 6. LED-V      | 13. BEEP+       |
| 7. GND        |                 |

C

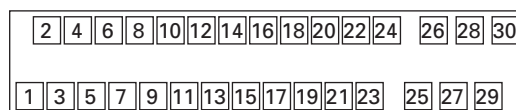


D

ANTENNA

REAR VIEW CAMERA

RGB



- |             |                     |
|-------------|---------------------|
| 1 : RETR    | 16 : RQ             |
| 2 : RETL    | 17 : MUTEVOL/SWACPW |
| 3 : ISOGND  | 18 : MUTEAMP        |
| 4 : SELR    | 19 : ASENBO         |
| 5 : SELL    | 20 : RESET          |
| 6 : GNDISO  | 21 : BSENS          |
| 7 : SELV    | 22 : REM            |
| 8 : SELVG   | 23 : MTOH           |
| 9 : VST     | 24 : HTOM           |
| 10 : VDT    | 25 : HTOP           |
| 11 : VCK    | 26 : PTOH           |
| 12 : CTOGPS | 27 : SWVDD          |
| 13 : GPSTOC | 28 : FM85           |
| 14 : RETV   | 29 : SWBUP          |
| 15 : VGND   | 30 : GNDFM          |

E

F



## 7.2 PARTS

### 7.2.1 IC

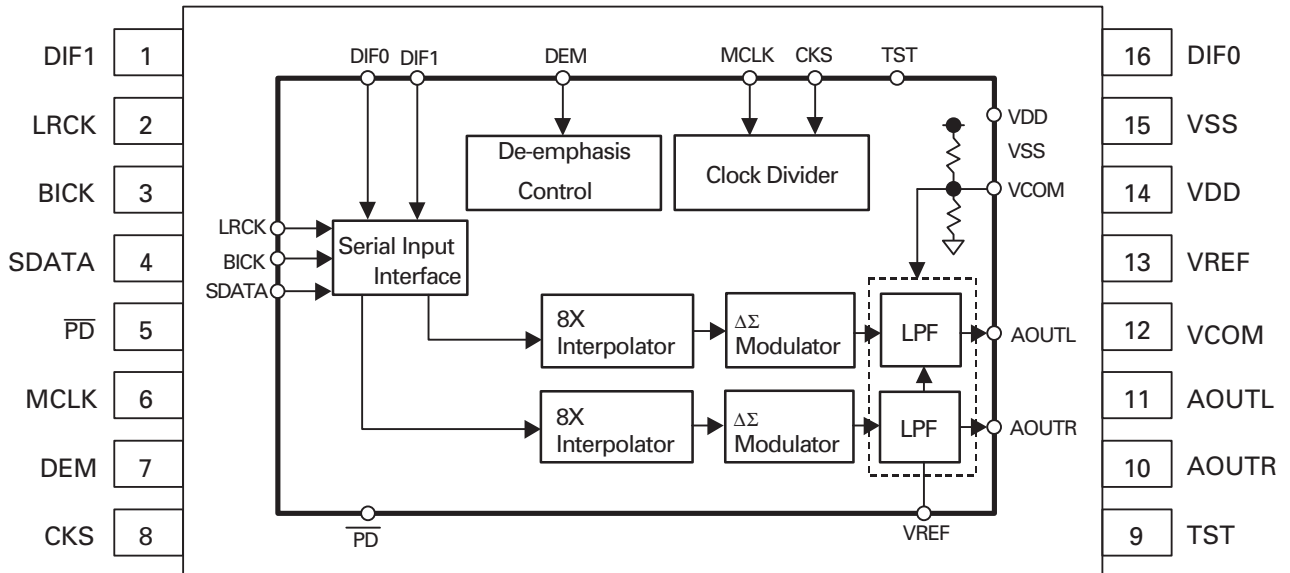
AK4351VT  
AK5381VT  
HY57V561620CLT-H  
K4S561632E-TL75  
PD6466A(UC model)  
PD6461A(EW model)  
PD6467A(UC model)  
PD6462A(EW model)

MB86291APFVS-G-DL  
S-L2980A33MC-C6S  
NJM2561F1  
PD6336B  
PD5937A  
PD3390A  
LC72720YVS(EW model)

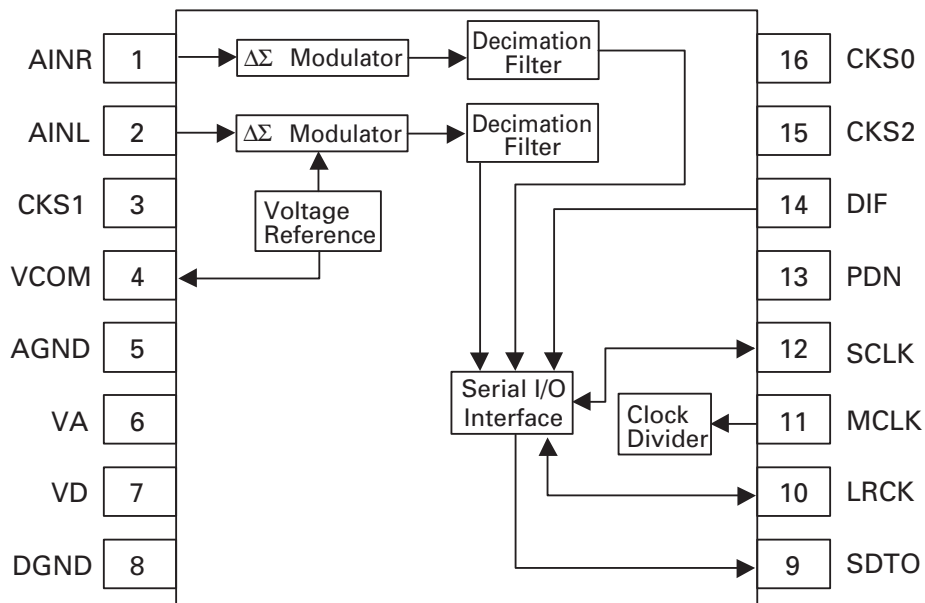
SBX3050-01  
PD6473A(UC model)  
PD6472A(EW model)  
PD6340A  
PE5413A  
S-80835CNNB-B8U  
SI6544DQ  
TK15404AMI

S-93C46BR0I-J8T1  
R1224N102H  
HA12240FP  
S-L2980A50MC-C7J  
S-812C33AMC-C2N  
PE5412A(UC model)  
PE5411A(EW model)

AK4351VT



AK5381VT

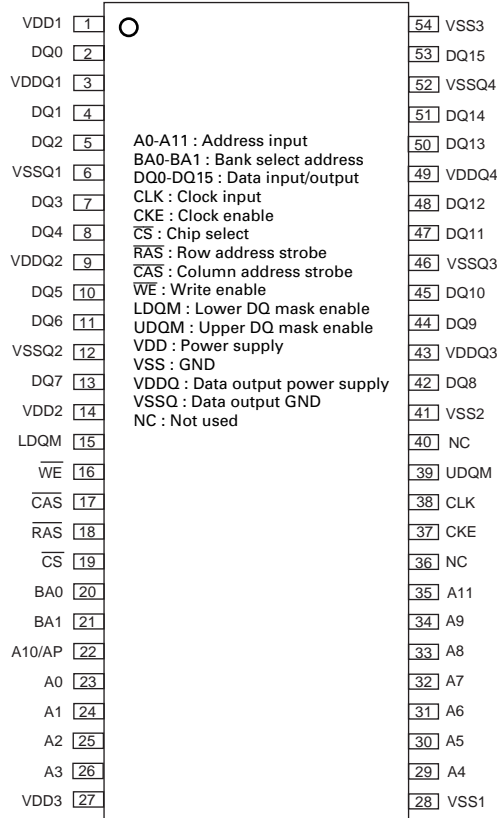




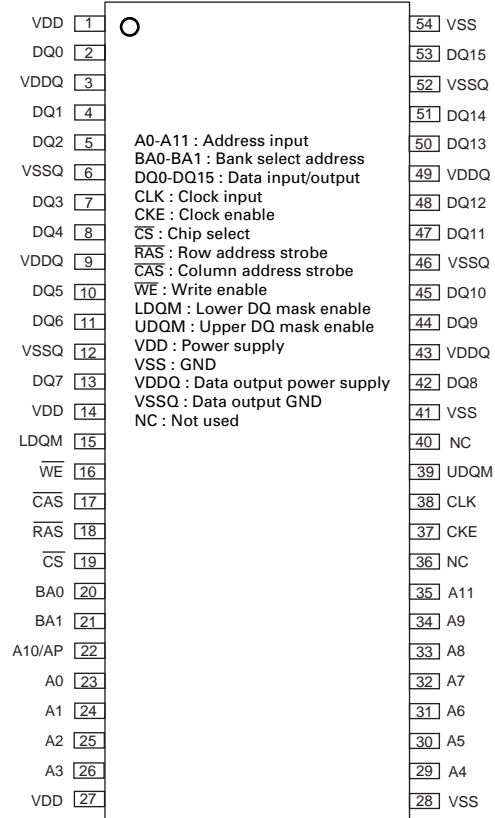
IC's marked by \* are MOS type.

Be careful in handling them because they are very liable to be damaged by electrostatic induction.

\* HY57V561620CLT-H

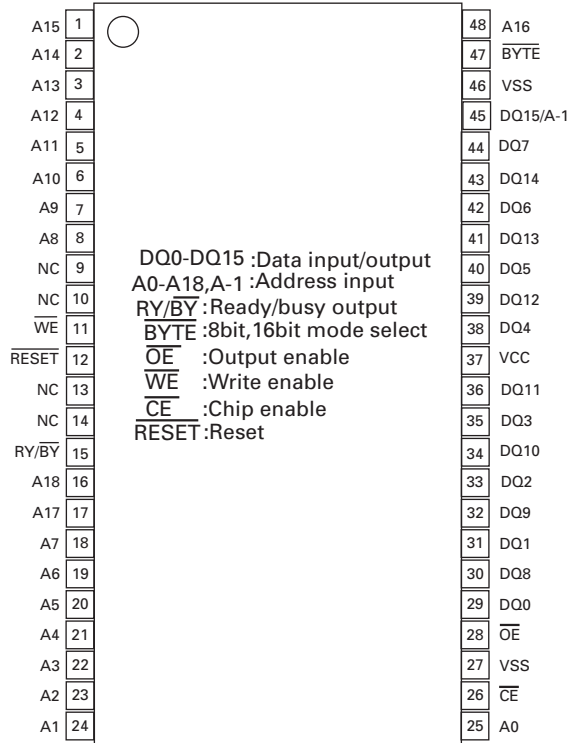


\* K4S561632E-TL75



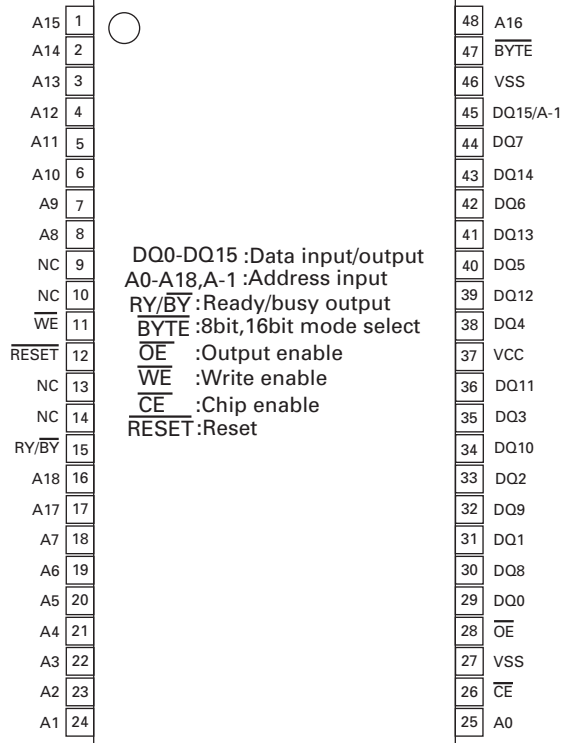
\* PD6466A(UC model)

\* PD6461A(EW model)



\* PD6467A(UC model)

\* PD6462A(EW model)









\* PD6336B

● Pin Arrangement Chart

1	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
2	85	160	159	158	157	156	155	154	153	152	151	150	149	148	147	146	145	144	143	142	63
3	86	161	228	227	226	225	224	223	222	221	220	219	218	217	216	215	214	213	212	141	62
4	87	162	229	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	273	140	61
5	88	163	230															272	209	139	60
6	89	164	231															271	208	138	59
7	90	165	232															270	207	137	58
8	91	166	233															269	206	136	57
9	92	167	234															268	205	135	56
10	93	168	235															267	204	134	55
11	94	169	236															266	203	133	54
12	95	170	237															265	202	132	53
13	96	171	238															264	201	131	52
14	97	172	239															263	200	129	51
15	98	173	240															262	199	128	50
16	99	174	241															261	198	127	49
17	100	175	242															260	197	126	48
18	101	176	243	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	196	125	47
19	102	177	244	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	124	46
20	103	178	179	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	45
21	104	105	106	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	44
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43

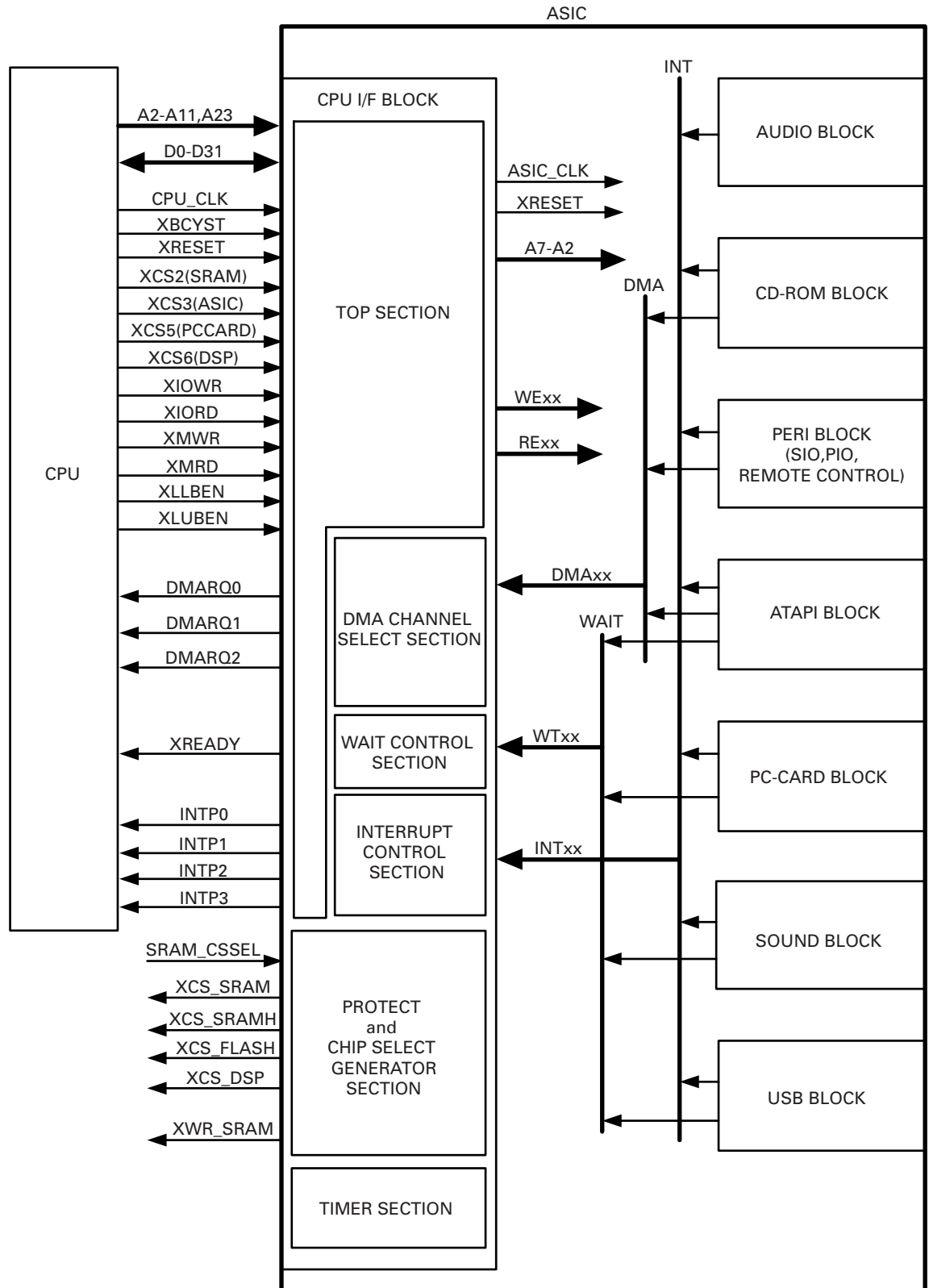
TOP VIEW

VSS	PIO27	DSP_BCLKI	PIO25	PIO24	PIO22	OVD23	DSP_BDI	DSP_BFSI	DSP_XHINT	DSP_HRDY	OVSS6	DSP_BFSO	DSP_BCLKO	XCS_SRAMH	OVD22	DSP_XRS	DSP_ATT0T	D31	CD_MCLK	ADC_G0T2	VSS
PIO29	PIO28	PIO26	D4	D6	OVSS7	D10	XCS_DSP	D14	PIO23	D18	D20	DSP_BDO	D24	PIO_OUT	OVSS5	TEST1	CD_LRCLK	CD_BLK	ADC_G0T0	ADC_G0T1	ADC_DATA
USBXPWRN	XCS_FLASH	D2	D3	D5	D8	D9	D12	D13	D16	D17	D19	D22	D23	D26	D27	D29	D30	A2	A3	ADC_BCLK	ADC_LRCLK
USBXOVRCLR	D0	D1	VSS	VDD	D7	VDD	D11	VSS	D15	VDD	VDD	D21	VSS	D25	VDD	D28	VSS	VSS	A4	ADC_MCLK	TEST4
UVD1M	XMIRD	XMWR	VSS															VDD	A5	A6	EXTAL1
UVD1P	USBPWRN	XLLEN	XLUBEN															VDDP	A7	A8	OVSS4
UVD2M	XIOWR	XIORD	VDD															VDD	A9	A10	XTAL1
UVD2P	NC	NC	NC															A11	A12	TEST2	TEST3
USB_CLK	NC	NC	VSS															VSS	PC_READY	DAC_MCLK	DAC_LRCLK
USB_CLK	NC	NC	VSS															PC_XVS2	PC_RESET	DAC_BCLK	DAC_DATA
XCS_SRAM	XREADY	XBCYST	VDD															VDD	PC_WXT	PC_XREG	PIO21
XWR_SRAM_SRAM_CSEL		XCS2	VDD															VDD	PC_BVD2	PC_A0	OVSS3
PIO31	PIO30	XCS3	XCS5															VDD	PC_WP	PIO20	CD_DATA
IR_RX	XCS6	DREQ0	VSS															VSS	PC_XCD2	PIO19	PIO18
TEST0	XTST	DREQ1	DREQ2															PC_XCD1	PC_XCE1	PIO17	PIO16
XTAL0	SMCK	INT3	VDD															VDD	PC_XCE2	PIO15	PIO14
MST	XSM	INT2	INT1															PC_XOE	PC_XVS1	PIO13	PIO12
EXTAL0	GDC_WT	INT0	VDD															VSS	PC_XIORD	PIO11	PIO10
UART9_TXD	UART9_RXD	ATA_DAO	VSS	VSS	ATA_XDIOR	VDD	ATA_DD1	VSS	ATA_DD5	VDD	VDD	ATA_DD10	VSS	ATA_DD14	VDD	ATA_XCS0	VDD	VSS	PC_XIOWR	PIO9	PIO8
UART8_TXD	UART8_RXD	ATA_DA1	ATA_INT	ATA_XDMACK	ATA_IORDY	ATA_DMARQ	ATA_DD0	ATA_DD3	ATA_DD4	ATA_DD7	ATA_DD8	ATA_DD9	ATA_DD12	ATA_DD13	ATA_DA2	ATA_XCS1	PC_XPWR	PC_XUBUF	PC_XWE	PIO7	PIO6
UART7_TXD	UART7_RXD	UART6_RXD	OVSS0	UART4_RXD	XRESET	ATA_XDIOW	UART3_RXD	ATA_DD2	UART1_RXD	ATA_DD6	ATA_XRESET	UART_XDCD	ATA_DD11	UART_XRI	ATA_DD15	UART1_XDTR	ATA_DIR	PC_XLBUF	PIO2	PIO5	PIO4
VSS	UART6_TXD	UART5_RXD	UART5_TXD	UART4_TXD	UART3_TXD	OVD20	UART2_TXD	UART2_RXD	UART1_TXD	A23	CPU_CLK	OVSS1	UART1_XCTS	UART_XDSR	OVD21	UART1_XRTS	PIO0	PIO1	OVSS2	PIO3	VSS

TOP VIEW



● Block Diagram Chart





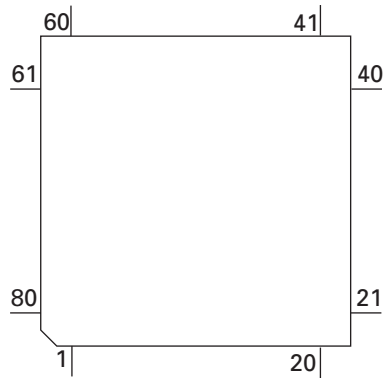
## ● Pin Functions(PD5937A)

Pin No.	Pin Name	I/O	Function and Operation
1	ARMSW	O	LED light output
2	NFANCNT	O	CC Unit Fan motor control output
3	AFANCNT	O	Power amplifier IC Fan motor control output
4	ILMPWR	O	Illumination ON output
5	REAON	O	Illumination color select output, when the rear monitor is ON (H : Green, L : Amber)
6	CNVSS	I	Connect to GND
7	DISC	I	Disc detect input
8	EJECT	I	Disc eject input
9	RESET	I	Reset input
10	XOUT	O	Crystal oscillator connection pin
11	GND		GND
12	XIN	I	Crystal oscillator connection pin
13	VDD		VDD
14	INT	I	Connect to VDD
15	BSENS	I	Backup sense input
16	ASENS	I	ACC sense input
17	FDSEN	I	Grille detach sense input
18	RST3	O	Navigation control reset output
19	AUPW	O	Audio power supply control output
20	DRAMPW	O	Navigation control DRAMPW output
21	BEEP	O	BEEP output
22	RXN	I	Data input from Navigation (UART)
23	TXIN	O	Data output to Navigation (UART)
24	TSO	O	Data output to Hideaway Unit (UART)
25	TSI	I	Data input from Hideaway Unit (UART)
26	TSCK	I	Test program clock input
27	BUSY		Not used
28	CCON	O	Navigation control CCON output
29	XCCSTB	I	Stand-by OK of the CC Unit input
30	CPUWDT	I	Watch dog timer input
31	IRQPW	O	Navigation control IRQPW output
32	RSTOUT	O	Navigation control RSTOUT output
33	MUTEPE		Not used
34	MUTNS	O	Mute output at the time of MIX
35	SELL	O	Navigation voice Lch MIX control output
36	SELR	O	Navigation voice Rch MIX control output
37	VFSEL	O	Front monitor source select output (H : Hideaway Unit, L : MS3)
38	VRSEL	O	Rear monitor source select output (H : Hideaway Unit, L : MS3)
39	VSEL3		Not used
40	DATA		Not used
41	CLK		Not used
42	CS		Not used
43	AMPSTB	O	Amplifier stand-by output
44	ILMSEL	O	Illumination color select output (H : Amber, L : Green)
45	ILMDIM	O	Sub display DIM power supply control output
46	DSSENS	I	Detach sense input
47	ILMSENS	I	Illumination sense input
48	PBSSENS	I	Parking brake sense input
49	TELIN	I	TEL mute input
50	ASENBO	O	ASENS output
51	MUTESO	O	Mute output
52	LIFTPUL	I	Lift pulse input
53	MTRS	O	Flap motor speed control output
54	MTRPW	O	Flap motor control power supply output
55	MTR1	O	Flap angle motor control signal output
56	MTR1	O	Flap position motor control signal output
57	MTRSEL	O	Flap motor control output
58	ANGLE0SW	I	Flap angle 0 sense input
59	LIFTSW	I	Lift sense input
60	SENSE5	O	Pulse power supply control output
61	ANTPW	O	Auto antenna power output
62	WCONT	I	Wired remote control SEL input
63	TESTIN	I	Test mode input
64	TIMEOUT	I	Timeout input
65-67	SIMUKE0-2	I	Model select input0-2
68	51MUTE	O	5.1 ch mute output



Pin No.	Pin Name	I/O	Function and Operation
69	NC		Not used
70	WREMIN	I	Wired remote control AD input
71	ATEMPI		Not used
72	ANGLE	I	Flap angle sense input
73	NTEMP1	I	CC Unit temperature input
74	NC		Not used
75	AVSS		A/D GND
76	NC		Not used
77	AVREF		A/D converter reference voltage
78	AVCC		A/D power supply
79	NC		Not used
80	MUTEGU	O	TELIN/GUIDE interrupt notice output

\* PD5937A





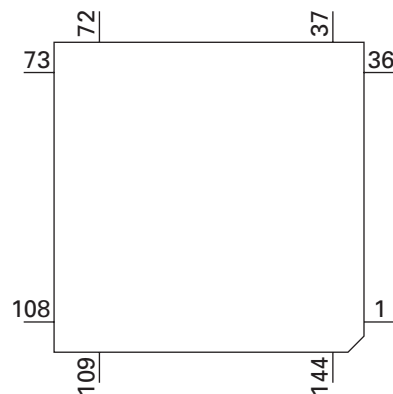
# **●Pin Functions(PD3390A)**

Pin No.	Pin Name	I/O	Format	Function and Operation
1	VCC0			Power supply (3.3V)
2	VSS0			GND
3	TXD2	I/O		SIO2 Transmission data input / output
4	RXD2	I/O		SIO2 Reception data input / output
5	TXD1	O	C	SIO1 Transmission data output
6	RXD1	I		SIO1 Reception data input
7	TXD0	O	C	SIO0 Transmission data output
8	RXD0	I		SIO0 Reception data input
9	SPEED	I		SP I/F input
10	ADCSB	O	C	AD I/F output
11	ADSCK	O	C	AD I/F output
12	ADTXD	O	C	AD I/F output
13	ADRXD	I		AD I/F input
14	ADSRX	I		AD I/F input
15	ADIO0	I/O		AD I/F input / output
16	ADIO1	I/O		AD I/F input / output
17	ADIO2	I/O		AD I/F input / output
18	VCC1			Power supply (3.3V)
19	VSS1			GND
20	PWM	O		PWM signal output
21	PLINT	I		PLL I/F input
22	PLCE	O	C	PLL I/F output
23	PLSCK	O	C	PLL I/F output
24	PLTX	O	C	PLL I/F output
25	PLRX	I		PLL I/F input
26	PLIO0	I/O		PLL I/F input / output
27	PLIO1	I/O		PLL I/F input / output
28	PLIO2	I/O		PLL I/F input / output
29	DDINT	I		Darc I/F input
30	DDCE	O	C	Darc I/F output
31	DDSCK	O	C	Darc I/F output
32	DDTX	O	C	Darc I/F output
33	DDRFX	I		Darc I/F input
34	DDIO0	I/O		Darc I/F input / output
35	DDIO1	I/O		Darc I/F input / output
36	DDIO2	I/O		Darc I/F input / output
37	TIOA0	I/O		Parallel input / output
38	TIOA1	I/O		Parallel input / output
39	TIOB0	I/O		Parallel input / output
40	TIOB1	I/O		Parallel input / output
41	VCC2			Power supply (3.3V)
42	VSS2			GND
43-53	A19-9	I/O		Address bus input / output
54	VCC3			Power supply (3.3V)
55	VSS3			GND
56-64	A8-0	I/O		Address bus input / output
65	VCC4			Power supply (3.3V)
66	VSS4			GND
67-82	D0-15	I/O		Address bus input / output
83	VCC5			Power supply (3.3V)
84	VSS5			GND
85	WRHB	I/O		Upper data write strobe input / output
86	WRLB	I/O		Lower data write strobe input / output
87	RDB	I/O		Read data strobe input / output
88	CS2B	I/O		Chip select aria 1 for external storage input / output
89	CS0B	I/O		Chip select aria 0 for ROM input / output
90	VCC6			Power supply (3.3V)



Pin No.	Pin Name	I/O	Format	Function and Operation
91	VSS6			GND
92	TEST2			Test mode
93	CKOEB	I		CK output enable input
94	CK	O	C	CPU clock output
95	CS5B	O	C	DRAM low address strobe output
96	CS3B	O	C	DRAM column address strobe output
97	CS1B	O	C	DRAM column address upper byte strobe output
98	RTCVSS1			Power supply (3.3V)
99	SRAMB	I		Backup memory select input
100	STANBYB	I		Stand by signal input
101	RTCVSS0			GND
102	XRTCIN	I		Sub crystal oscillator input (RTC)
103	XRTCOUT	O	C	Sub crystal oscillator output (RTC)
104	RTCVCC			Power supply (3.3V)
105	PCKSEL0	I		Processor clock select input
106	PCKSEL1	I		Processor clock select input
107	CCKSEL	I		CRCK signal select input
108	CCKDIR	I/O		Carrier clock direct input / inverter amp output
109	CCKVCC			Power supply (3.3V)
110	CRCK	I		Carrier clock input
111	CCKGND			GND
112-118	PC0-6	I/O		Parallel input / output
119	NMI			Connect to VCC
120	RESETB	I		System reset input
121	MSTRSTB	I		Test reset input
122	TEST0	I		Test mode input
123	TEST1	I		Test mode input
124	REFSEL	I		GPS reference clock select input
125	REFCK	I		Reference clock input
126	VCC7			Power supply (3.3V)
127	VSS7			GND
128	XAUXIN	I		Sub crystal oscillator output input (AUX)
129	XAUXOUT	O	C	Sub crystal oscillator output (AUX)
130-133	PIN0-3	I		Parallel input
134-137	PIO4-7	I/O		Parallel input / output
138	TXD3	I/O		SI03 Transmission data input / output
139	RXD3	I/O		SI03 Reception data input / output
140	BOWWOWB	O	C	Watch dog timer output
141	IFDIR	I/O		IF direct input / IF inverter amp output
142	IFVCC			Power supply (3.3V)
143	IF	I		IF input
144	IFGND	I		IF amp GND input

\* PD3390A



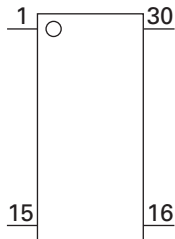
Format	Meaning
C	C MOS



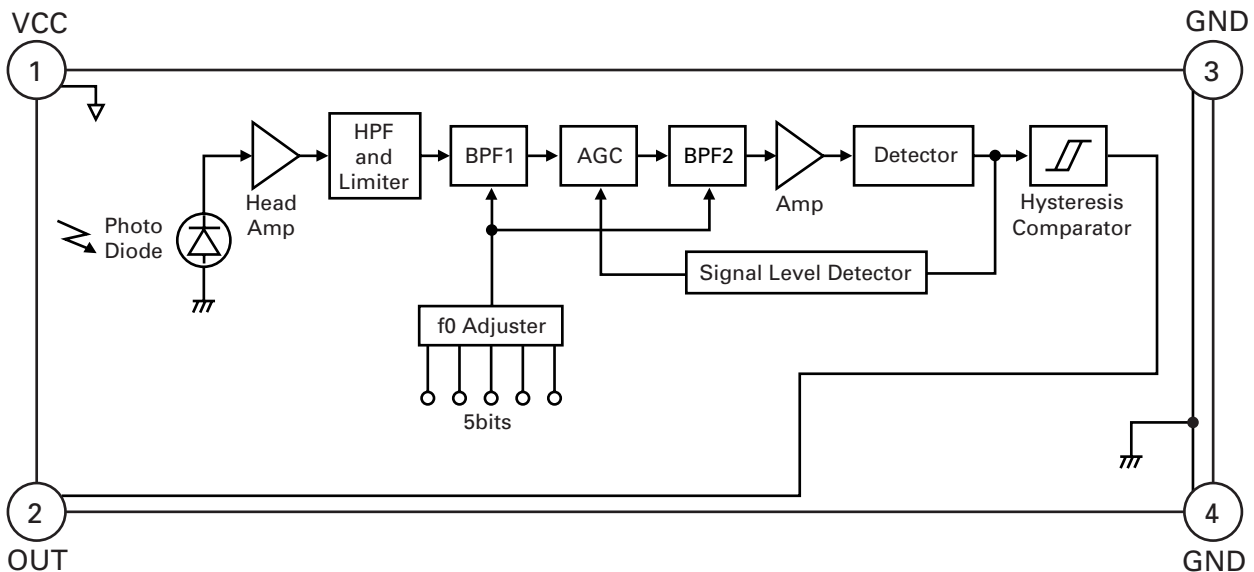
## ●Pin Functions(LC72720YVS : EW model)

Pin No.	Pin Name	I/O	Function and Operation
1	VREF	O	Reference voltage output
2	MPXIN	I	Base band (multiplexed) signal input
3	Vdda		Analog system power supply (+5V)
4	NC		Not used
5	Vssa		Analog system GND
6	FLOUT	O	Sub carrier output (filter output)
7	CIN	I	Sub carrier input (comparator input)
8	NC		Not used
9	T1	I	Test input (connect to GND)
10	T2	I	Test input (stand-by control)
11	T3	O	RDS clock output
12	NC		Not used
13	T4	O	RDS data output
14	T5	O	Soft-decision control data output
15	XOUT	O	Crystal oscillator output
16	XIN	I	Crystal oscillator input
17	Vddd		Digital system power supply (+5V)
18	Vssd		Digital system GND
19	NC		Not used
20	T6	O	Error status, regenerated carrier and error block count outputs
21	T7	O	Error correction status, SK detection and error block count outputs
22	SYNC	O	Block synchronization detection output
23	NC		Not used
24	RDS-ID	O	RDS detection output
25	DO	O	Data output
26	CL	I	Clock input
27	NC		Not used
28	DI	I	Data input
29	CE	I	Chip enable input
30	SYR	I	Synchronization and RAM address reset input

\* LC72720YVS(EW model)



SBX3050-01









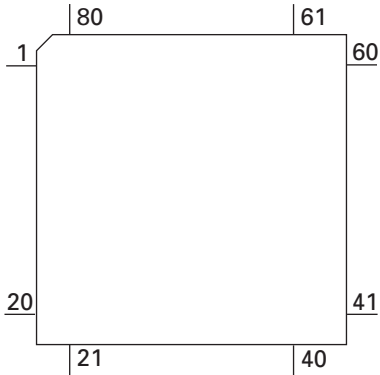
## ● Pin Functions(PE5413A)

Pin No.	Pin Name	I/O	Function and Operation
1	PNLADX	I	X directions analog input
2	LSEN	I	Lens sense input
3	PNLADY	I	Y directions analog input
4	AVSS		A/D converter GND
5	DIMMER	O	Dimmer analog output
6	INVBST_DA	O	Back light boost signal output (low temperature)
7	AVREF1		D/A converter reference voltage
8	RXD	I	Data input from system microcomputer (UART)
9	TXD	O	Data output to system microcomputer (UART)
10	MFLPW	O	Back light control output
11	LKYDT	I	Data input from LCD micro computer (UART)
12	LDPDT	O	Data output to LCD micro computer (UART)
13	MVIPW	O	Picture power supply control output
14	OSDCS	O	OSD chip select output
15	NC		Not used
16	TSI	I	Test program data input
17	TSO	O	Test program data output
18	TSCK	I	Test program clock input
19	OVICLK	I	Back light power supply overcurrent detect input
20	EPRRST	I	EEPROM reset input
21	EPRTST	I	EEPROM data setup mode input
22	STEST	I	Monitor operation mode input
23	STEST2	I	Touch panel test mode input
24	PNLXV	O	Hi output is carried out when X directions is detected
25	PNLYV	O	Hi output is carried out when Y directions is detected
26	NC		Not used
27	SDA	I/O	IC data input / output
28	SCL	O	IC clock output
29	PIPRES	O	IC reset output
30	LSWVDD	O	LCD micro computer power supply control output
31,32	NC		Not used
33	VSS1		GND
34-37	NC		Not used
38	ROMDATA		Not used
39	ROMCLK		Not used
40	POMCS		Not used
41,42	NC		Not used
43	INVBST		Not used
44	INVPUL	O	Inverter pulse output
45	BEEP		Not used
46	EPRCS	O	EEPROM chip select output
47	EPRSK	O	EEPROM serial clock output
48	EPRDO	O	EEPROM serial data output
49	EPRDI	I	EEPROM serial data input
50	EPRPROT	O	EEPROM memory protect output
51	TESTIN	I	Chip test input
52	NC		Not used
53	LDIMMER		Not used
54	LBKL	O	LCD micro computer back light power supply control output
55,56	NC		Not used
57	LCDTYPE1	I	LCD panel type detect input1
58	NC		Not used
59	LCDTYPE2	I	LCD panel type detect input2
60	RESET	I	Reset input
61	REMIN	I	Remote control data input
62	VDDSENS	I	Power supply sense input
63	ROT0	I	Rotary encoder input0
64	ROT1	I	Rotary encoder input1
65	LCDLR		Not used
66	TVIND		Not used
67	VSS0		GND
68	VDD1		Power supply
69	X2		Crystal oscillator connection pin
70	X1		Crystal oscillator connection pin
71	VPP		Not used
72	XT2		Not used

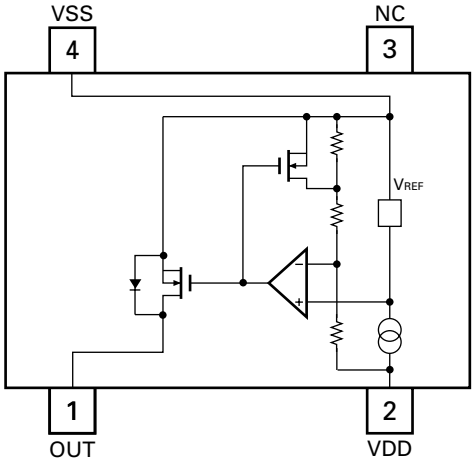


Pin No.	Pin Name	I/O	Function and Operation
73	XT2		GND
74	VDD0		Power supply
75	AVDD		A/D converter power supply
76	KEY0	I	Analog key data input 0
77	KEY1	I	Analog key data input 1
78	KEY2	I	Analog key data input 2
79	NC		Not used
80	TEMPSEN	I	Temperature sense input (back light boost)

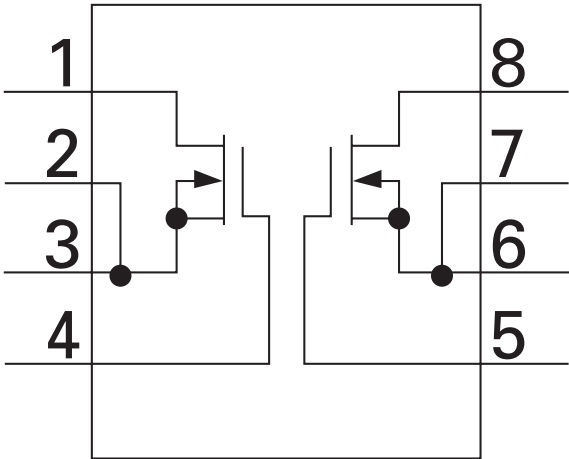
\* PE5413A



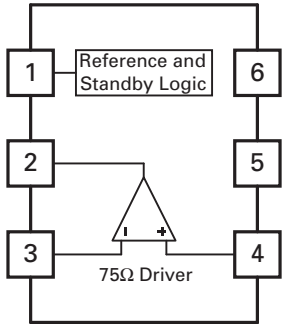
\* S-80835CNNB-B8U



SI6544DQ

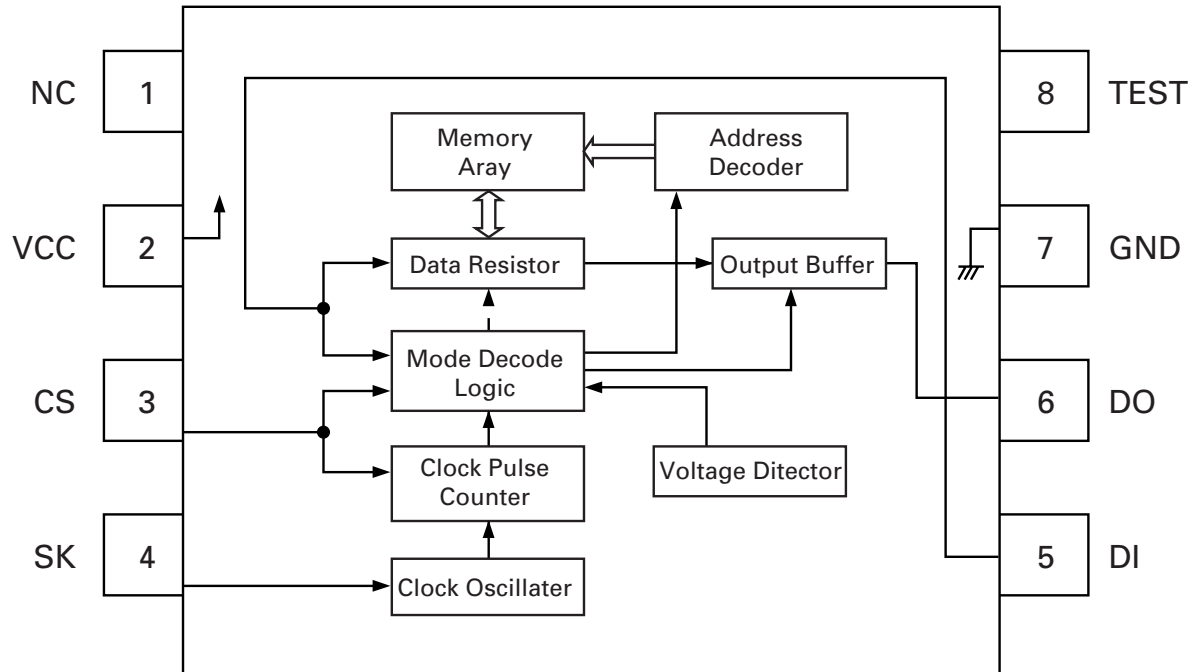


TK15404AMI

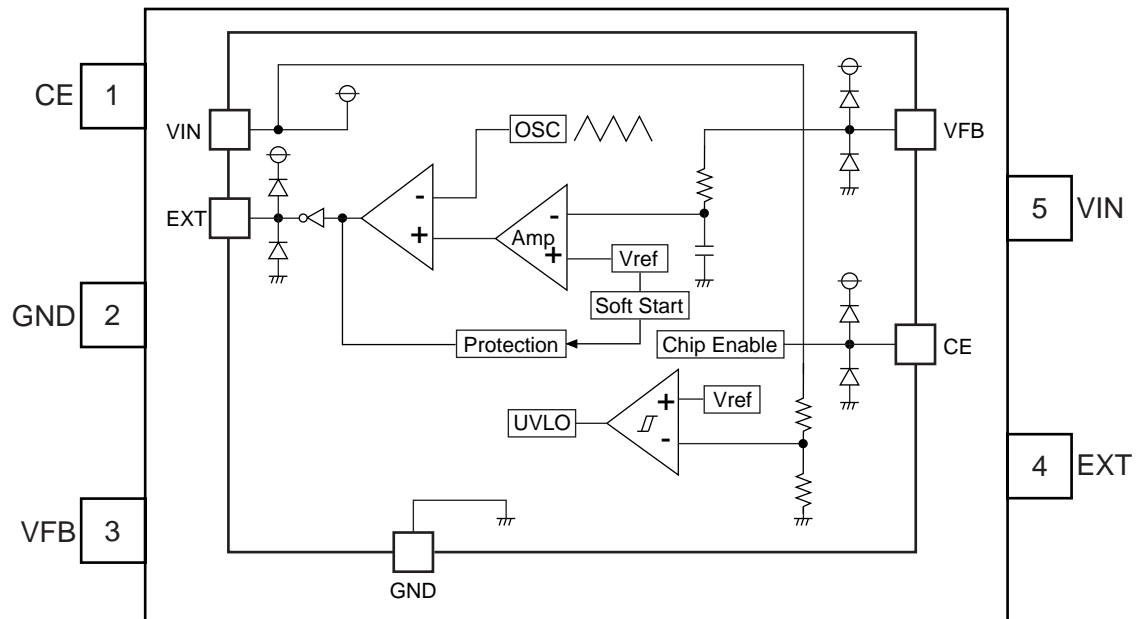




S-93C46BR0I-J8T1

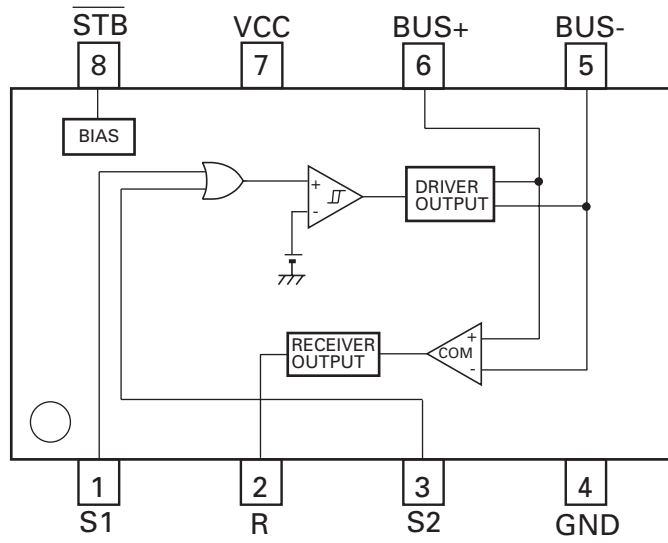


\* R1224N102H

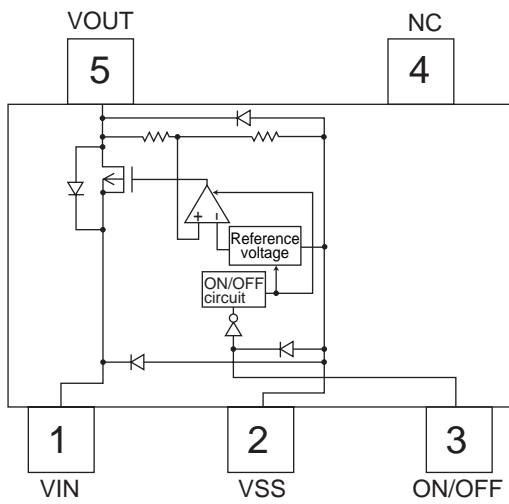




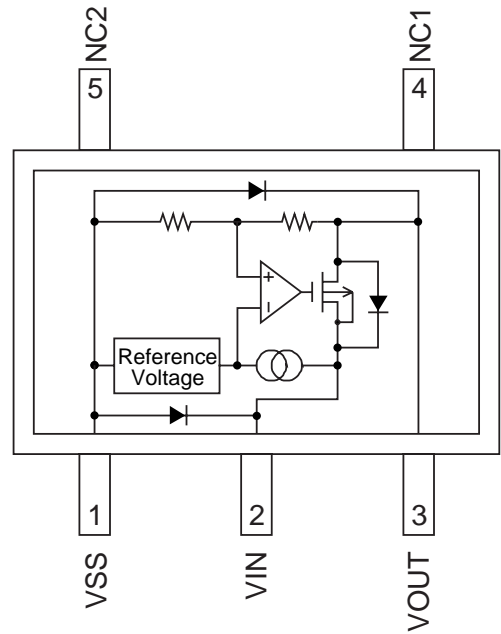
HA12240FP



\* S-L2980A50MC-C7J



\* S-812C33AMC-C2N





# **●Pin Functions(PE5412A : UC model)(PE5411A : EW model)**

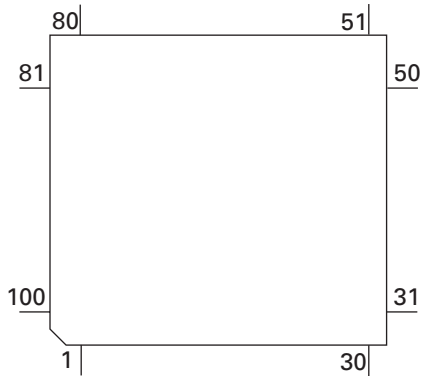
Pin No.	Pin Name	I/O	Function and Operation
1	HTOP	O	UART output to power supply microcomputer
2	HFANCONT		Not used
3-5	NC		Not used
6	MTOH	I	UART input from monitor microcomputer
7	HTOM	O	UART output to monitor microcomputer
8	TSCK		Not used
9	EVDD		Power supply
10	EVSS		GND
11	MUTEAMP	O	Mute output (AMP)
12	ACCPW		Not used
13	SWACPW	O	Monitor microcomputer power supply output
14	HACCPW	O	Hide away power supply ON/OFF output
15-17	NC		Not used
18	SWBUPSW		Not used
19	SWVDDSW		Not used
20	HFANON		Not used
21	VPP		VSS
22	VCK	O	E-VOL : Clock output
23	VDI	O	E-VOL : Data output
24	VST	O	E-VOL : Strobe pulse output
25	MUTEVOL	O	E-VOL : Mute output
26	RX	I	IP-BUS : Data input
27	TX	O	IP-BUS : Data output
28	IPPW	O	IP-BUS : Driver power supply control output
29	ASENBO	O	IP-BUS : Slave ACC sense output
30	NC		Not used
31	ROMDATA		Not used
32	ROMCLK		Not used
33	ROMCS		Not used
34	RESET	I	Reset input
35	XT2		Open
36	XT1		Pull up
37	REGC		Memory connection for the regulator stabilization
38	X2		Crystal oscillator connection pin
39	X1		Crystal oscillator connection pin
40	VSS		GND
41	VDD		Power supply
42	PCL		Clock output
43	NC		Not used
44	REVSNS	I	Reverse signal sense input
45,46	STEST1,2	I	Single operation mode input1,2
47,48	SIMUKE1,2		Not used
49	TESTIN	I	Test mode input
50	NC		Not used
51,52	VSELIN1,2	I	VSEL input1,2
53	AVONIN	I	AV-BUS : AV ON input
54-57	NC		Not used
58	BVDD		Power supply
59	BVSS		GND
60	RECIVE		Not used
61	RDSHLK	I	RDS : High speed signal input (EW model)
62	RDSLK	I	RDS : Signal input (EW model)
63	RDT	I	RDS : Data input (EW model)
64	NC		Not used
65,66	TUNCE1,2	O	PLL chip enable output1,2
67	NC		Not used
68	HMUTEA	O	Rear voice mute output
69	HMUTEV	O	Rear picture driver stand-by output
70	NC		Not used
71	SCL	I/O	IIC-BUS : Clock input/output
72	SDA	I/O	IIC-BUS : Data input/output
73	AVSELMUTE		Not used
74	AVDD		VDD
75	AVSS		VSS
76	AVREF		Not used
77	TUNSL	I	FM/AM tuner : Signal level analog input



Pin No.	Pin Name	I/O	Function and Operation
78	TEMP		Not used
79-89	NC		Not used
90	BSENS	I	Backup sense input
91	ASENS	I	ACC sense input
92	TUNLDET	I	Tuner : PLL lock detect input (EW model)
93	RDSCK	I	RDS : Data clock input (EW model)
94-96	NC		Not used
97	TUNPDI	I	FM/AM tuner : PLL data input
98	TUNPDO	O	FM/AM tuner : PLL data output
99	TUNCK	O	PLL clock output
100	PTOH	I	UART input from power supply microcomputer

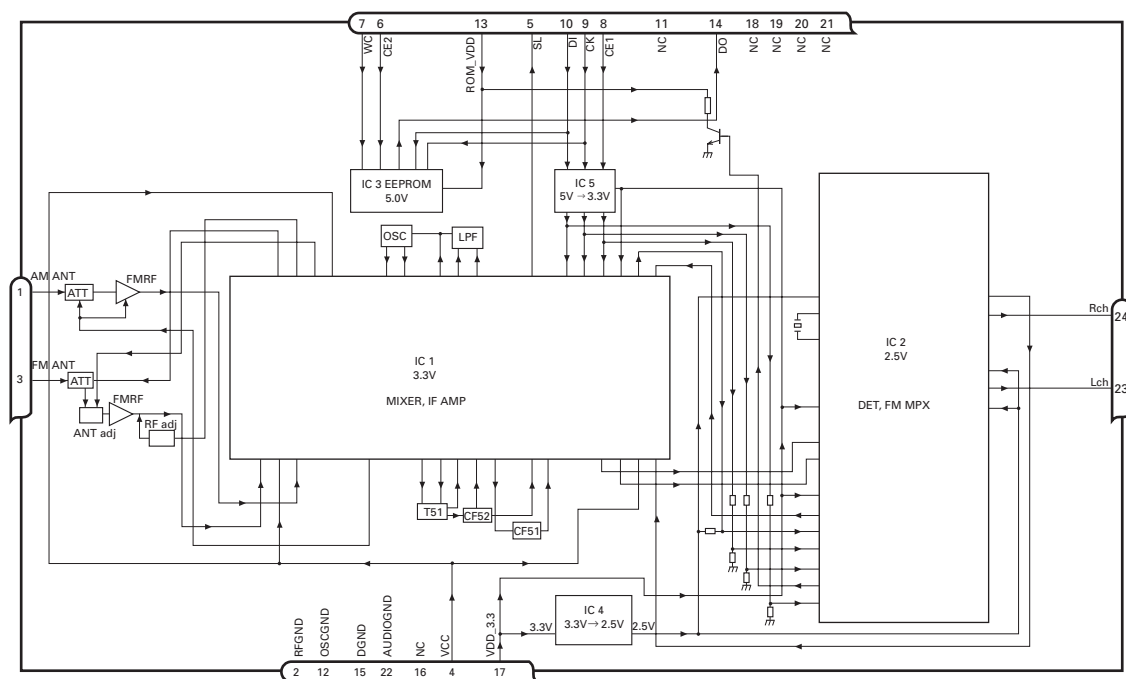
\* PE5412A(UC model)

\* PE5411A(EW model)





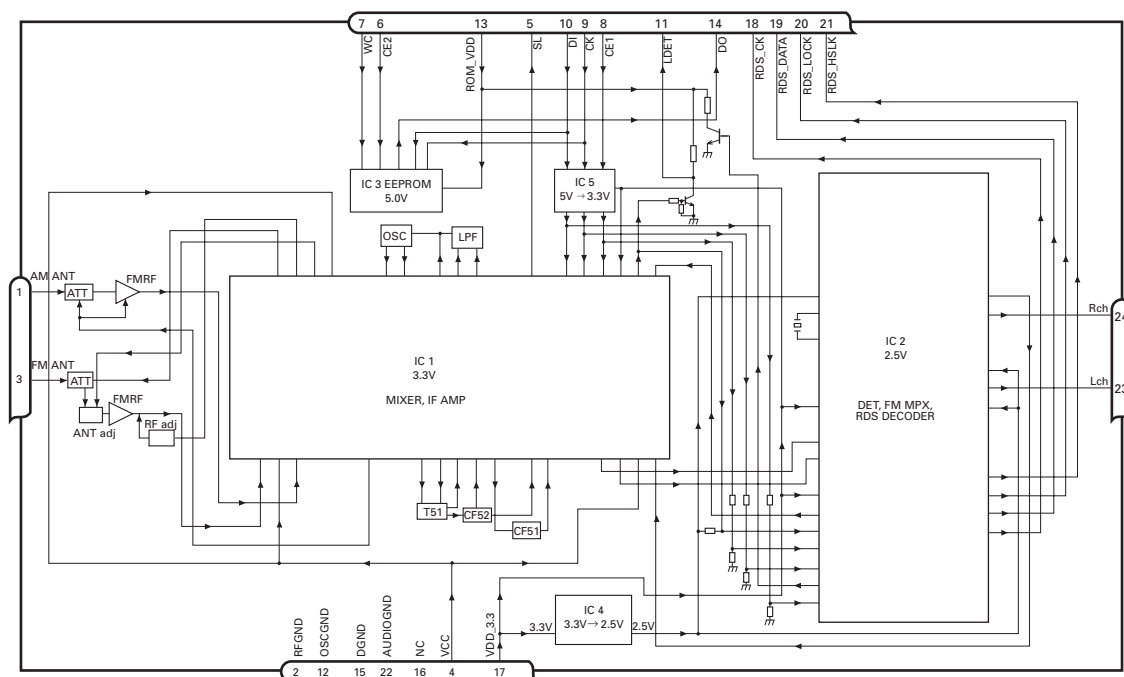
# ● FM/AM Tuner Unit (AVIC-N1/UC)



No.	Symbol	I/O	Explain
1	AMANT	I	AM antenna input AM antenna input high impedance AMANT pin is connected with an all antenna by way of 4.7μH. (LAU type inductor) A series circuit including an inductor and a resistor is connected with RF ground for the countermeasure against the hum of power transmission line.
2	RFGND		RF ground Ground of antenna block
3	FMANT	I	FM antenna input Input of FM antenna 75Ω Surge absorber(DSP-201M-S00B) is necessary.
4	VCC		power supply The power supply for analog block. D.C 8.4V ± 0.3V
5	SL	O	signal level Output of FM/AM signals level
6	CE2	I	chip enable-2 Chip enable for EEPROM "Low" active
7	WC	I	write control You can write EEPROM, when EEPROM write control is "Low". Ordinary non connection
8	CE1	I	chip enable-1 Chip enable for AF•RF "High" active
9	CK	I	clock Clock
10	DI	I	data in Data input
11	NC		non connection Not used
12	OSCGND		osc ground Ground of oscillator block
13	ROM_VDD		power supply Power supply for EEPROM pin 13 is connected with a power supply of micro computer.
14	DO	O	data out Data output
15	DGND		digital ground Ground of digital block
16	NC		non connection Not used
17	VDD_3.3		power supply The power supply for digital block. 3.3V ± 0.2V
18	NC		non connection Not used
19	NC		non connection Not used
20	NC		non connection Not used
21	NC		non connection Not used
22	AUDIOGND		audio ground Ground of audio block
23	L ch	O	L channel output FM stereo "L-ch" signal output or AM audio output
24	R ch	O	R channel output FM stereo "R-ch" signal output or AM audio output



# ● FM/AM Tuner Unit (AVIC-X1/EW)



No.	Symbol	I/O	Explain
1	AMANT	I	AM antenna input
2	RFGND		RF ground
3	FMANT	I	FM antenna input
4	VCC		power supply
5	SL	O	signal level
6	CE2	I	chip enable-2
7	WC	I	write control
8	CE1	I	chip enable-1
9	CK	I	clock
10	DI	I	data in
11	LDET	O	lock detector
12	OSCGND		osc ground
13	ROM_VDD		power supply
14	DO	O	data out
15	DGND		digital ground
16	NC		non connection
17	VDD_3.3		power supply
18	RDS_CK	O	RDS clock
19	RDS_DATA	O	RDS data
20	RDS_LOCK	O	RDS lock
21	RDS_HSLK	O	RDS high speed lock
22	AUDIOGND		audio ground
23	L ch	O	L channel output
24	R ch	O	R channel output



7.2.2 DISPLAY

● LCD(CAW1828)

A

B

C

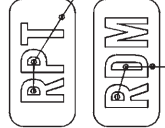
D

E

F

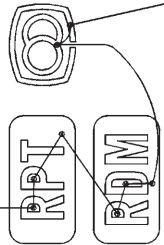
SEGMENT

- NC
- COM1
- COM2
- COM3
- COM4
- SEG1
- SEG2
- SEG3
- SEG4
- SEG5
- SEG6
- SEG7
- SEG8
- SEG9
- SEG10
- SEG11
- SEG12
- SEG13
- SEG14
- SEG15
- SEG16
- SEG17
- SEG18
- SEG19
- SEG20
- SEG21
- SEG22
- SEG23
- SEG24
- SEG25
- SEG26
- SEG27
- SEG28
- SEG29
- SEG30
- SEG31
- SEG32
- SEG33
- SEG34
- SEG35
- SEG36
- SEG37
- SEG38
- SEG39
- SEG40
- NC



COMMON

- COM1
- COM2
- COM3
- COM4





## 7.3 EXPLANATION

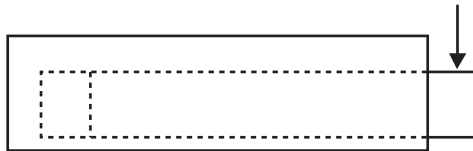
### 7.3.1 MECHANISM DESCRIPTIONS

#### ● Outline of the FLAP motion

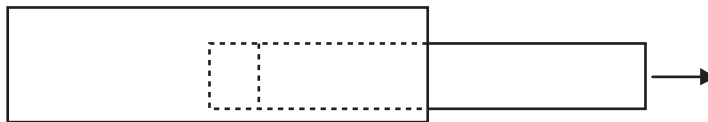
1. The motion is actuated made by two motors, the forward/backward driving motor (CXB9515) and the angle driving motor (CXB9516).
2. Analog electric potential generated by the angle encoder is detected to detect angle motion status and motion position.
3. Memory function for the angle last position is accomplished by the micro processor using the 256 resolution steps of the VDD.
4. A pulse is detected by the photo interrupter to detect the horizontal motion status.
5. In the case of reset start, the monitor will be in a stored position first, and ejection motion will take place, which puts the system in the booted up state.
6. Angle adjustment is made by the angle key (+/-).
7. OPEN/CLOSE key makes the monitor stored or ejected, and temporary folding key folds the monitor temporarily.
8. Setting of the monitor auto storage/ejection ON/OFF and set back ON/OFF at the time of ACC ON/OFF is made on the navigation menu screen.
9. A backlight is switched-off during forward/backward and storage.

#### ● Explanation on the FLAP ejection motion

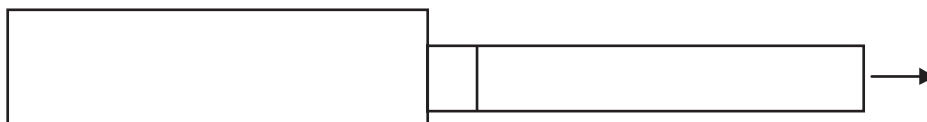
1. When the OPEN key is pressed or ACC is set to ON while the auto OPEN/CLOSE is being set to ON, angle driving motor rotates in the 0° direction for 500ms. (Pressed down.)



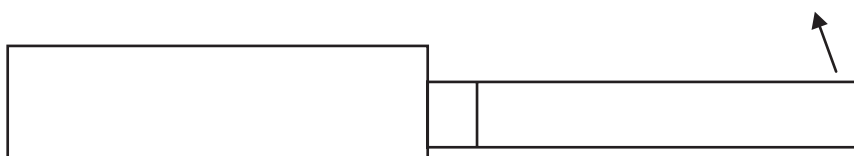
2. After 500ms, the angle driving motor is stopped, and the forward/backward driving motor rotates in the ejection direction.



3. For a period of 600ms from the time when LIFTSW is switched from H to L, the forward/backward driving motor keeps rotating in the ejection direction.

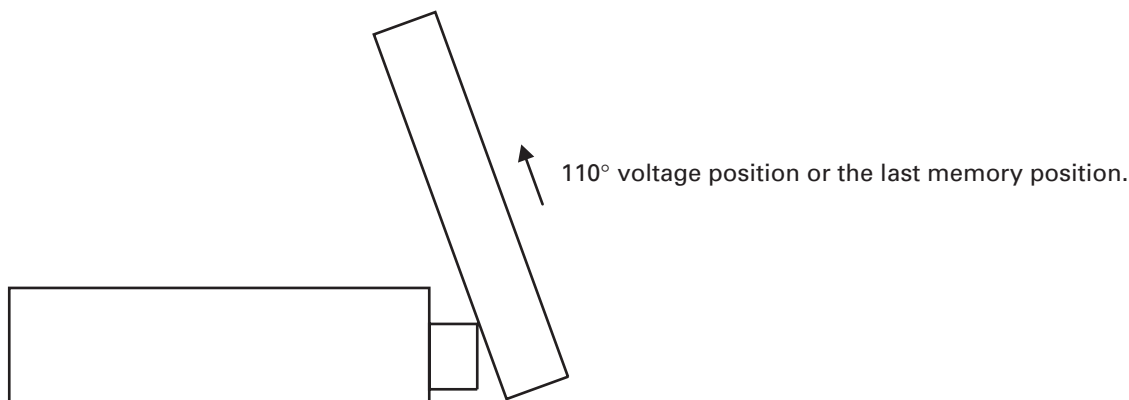


4. After 600ms, the forward/backward driving motor is stopped, and the angle driving motor rotates in the UP direction.

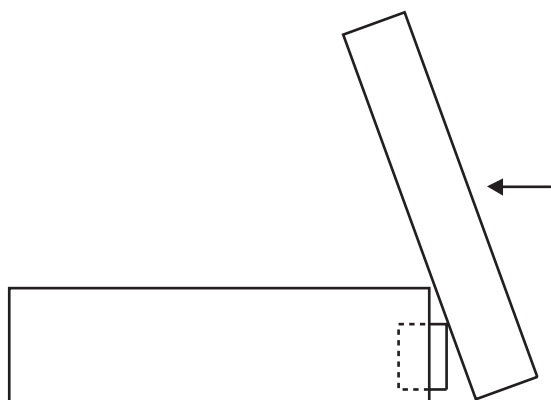




5. When the angle voltage reaches the voltage for  $110^\circ$ , brake is applied to the angle driving motor, and the ejection is completed. (In case the previous angle is stored in the memory, the motion continues to that angle.)

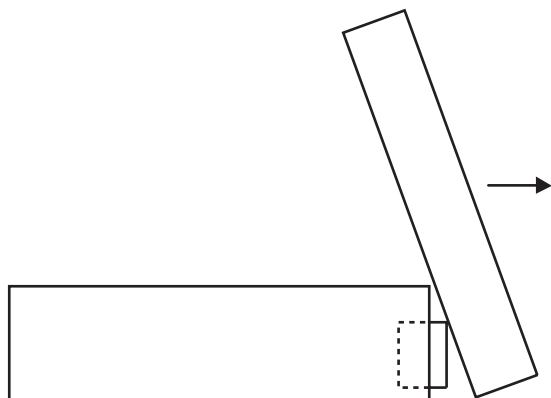


6. When the setback is set to ON, after the monitor angle voltage has reached the previously memorized voltage, brake is applied to the angle driving motor, then the forward/backward driving motor is rotated in slow speed in the storage direction. After that, when LIFTSW has switched from L to H, the forward/backward driving motor is stopped.



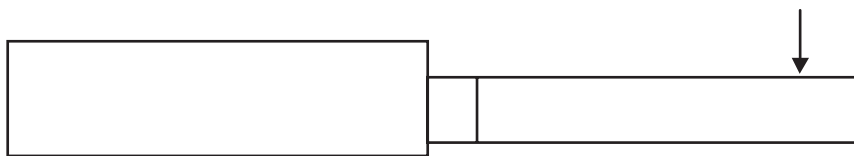
### ● Explanation of the FLAP storage motion

1. When CLOSE key is pressed, or after 6 seconds from ACC OFF when auto OPEN/CLOSE is being set to ON, the angle driving motor is rotated in the  $0^\circ$  direction. In case the setback setting is ON, the forward/backward driving motor is rotated in high speed in the ejection direction and the motor continues to rotate for 600ms from the time when LIFTSW is switched from H to L, then the angle driving motor is rotated in the  $0^\circ$  direction.

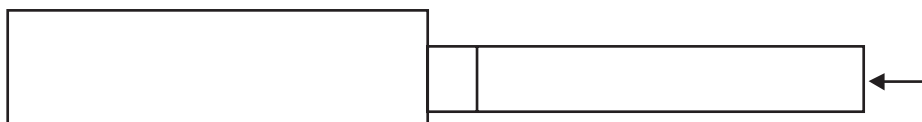




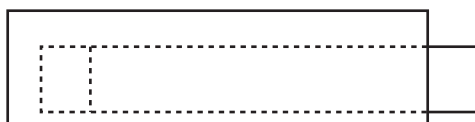
2. For a period of 500ms from the time when DIGOSW is switched from H to L, the angle driving motor is rotated in the 0° direction for the “pressed down” motion.



3. After 500ms, brake is applied to the angle driving motor, and then the forward/backward driving motor is rotated in the storage direction.

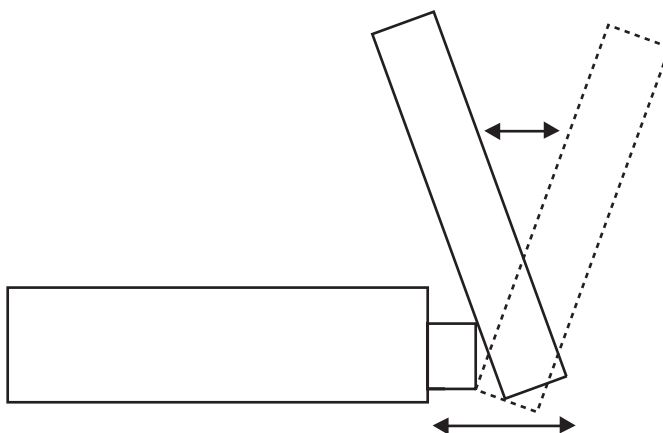


4. When the horizontal motion detection pulse is no longer detected for 200ms, brake is applied and the monitor storage motion is completed.



### ● Explanation on the FLAP angle adjustment

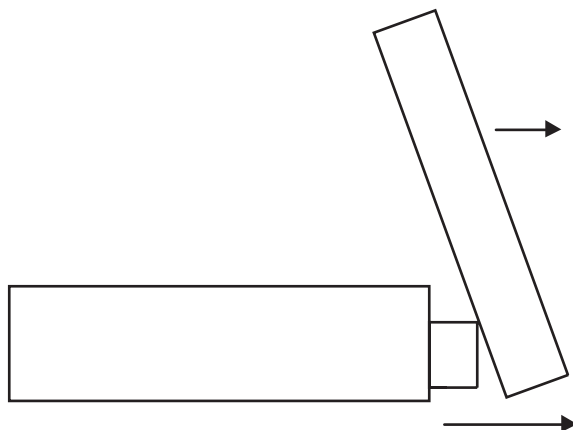
1. The angle driving motor is rotated in UP direction by the “+” key and in DOWN direction by the “-” key from the monitor stop position. If the key is kept pressed, the monitor will keep changing the angle without steps within the range of 50 to 110 degrees. When the setback is being set to ON, the forward/backward driving motor is rotated in the horizontal ejection direction while the key is being pressed, and angle adjustment is made by changing the angle voltage to the extent the angle adjustment key is effective after 600ms has elapsed from the time when LIFTSW has switched from H to L. When 3 seconds have elapsed from the time of angle adjustment completion, the forward/backward driving motor is rotated in slow speed in the horizontal storage direction, and brake is applied when LIFTSW has switched from L to H.



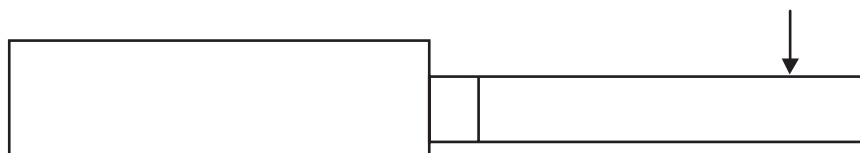


### ● Explanation on the FLAP temporary folding operation

1. By pressing the temporary folding key, the angle driving motor is rotated from the monitor stop position toward  $0^\circ$  direction. When the setback is being set to ON, the forward/backward driving motor is rotated when the key is pressed, brake is applied after 600ms has elapsed from the time when LIFTSW has switched from H to L, and the angle driving motor is rotated in  $0^\circ$  direction.



2. For a period of 500ms after DEGOSW has switched from H to L, the angle driving motor is rotated, and the monitor stops at its horizontal position by the brake. After 7 seconds, navigator operation sound is heard three times in 1 second interval. After 10 seconds, the angle driving motor is rotated in UP direction, and then the brake is applied to stop the motor at the last memory position. When the setback is being set to ON, after the angle driving motor stops at the last memory position, the forward/backward driving motor is rotated in slow speed in the horizontal storage direction, and the motor stops after LIFTSW has switched from L to H.



### ● Notes related to the FLAP motion

1. Regarding the angle position, angle voltage is always checked, and the last memory is stored by addition or subtraction of the voltage. It should be noted, however, that the last memory will not be stored when the monitor is manually moved by force.
2. If the expected pulse is not detected during horizontal motion, the monitor will stop at that position.



● Table of driving unit operations by different preset modes

		OPEN state	In OPEN motion	In CLOSE motion	CLOSE state
Auto OPEN/CLOSE setting ON	Bup ON (Reset start)	CLOSE state ↓ CLOSE ↓ OPEN state ↓ Last angle	—	—	Continue OPEN motion ↓ Last angle
	Bup OFF	To stand-by	To stand-by	To stand-by	To stand-by
	Bup OFF→ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC ON	No state change	—	—	OPEN motion ↓ Last angle ↓ Return
	ACC OFF→ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC OFF	6 sec from ACC OFF ↓ Advance ↓ CLOSE motion ↓ CLOSE	Continue OPEN motion ↓ Last angle ↓ Return ↓ 6 sec from ACC OFF ↓ Advance ↓ CLOSE motion ↓ CLOSE	Continue CLOSE motion ↓ CLOSE	No state change
	Last memory	OPEN	OPEN	CLOSE	CLOSE
Auto OPEN/CLOSE setting OFF	Bup ON (Reset start)	—	—	—	—
	Bup OFF	To stand-by	To stand-by	To stand-by	To stand-by
	Bup OFF→ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC ON	No state change	—	—	No state change
	ACC OFF→ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC OFF	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	Last memory	OPEN	OPEN	CLOSE	CLOSE

\* When the setback is being set to OFF, there will be no advance/return motion.

After ACC OFF, if ACC is switched ON again during the 6 seconds counting, standby will be passed and the FLAP status will not change.

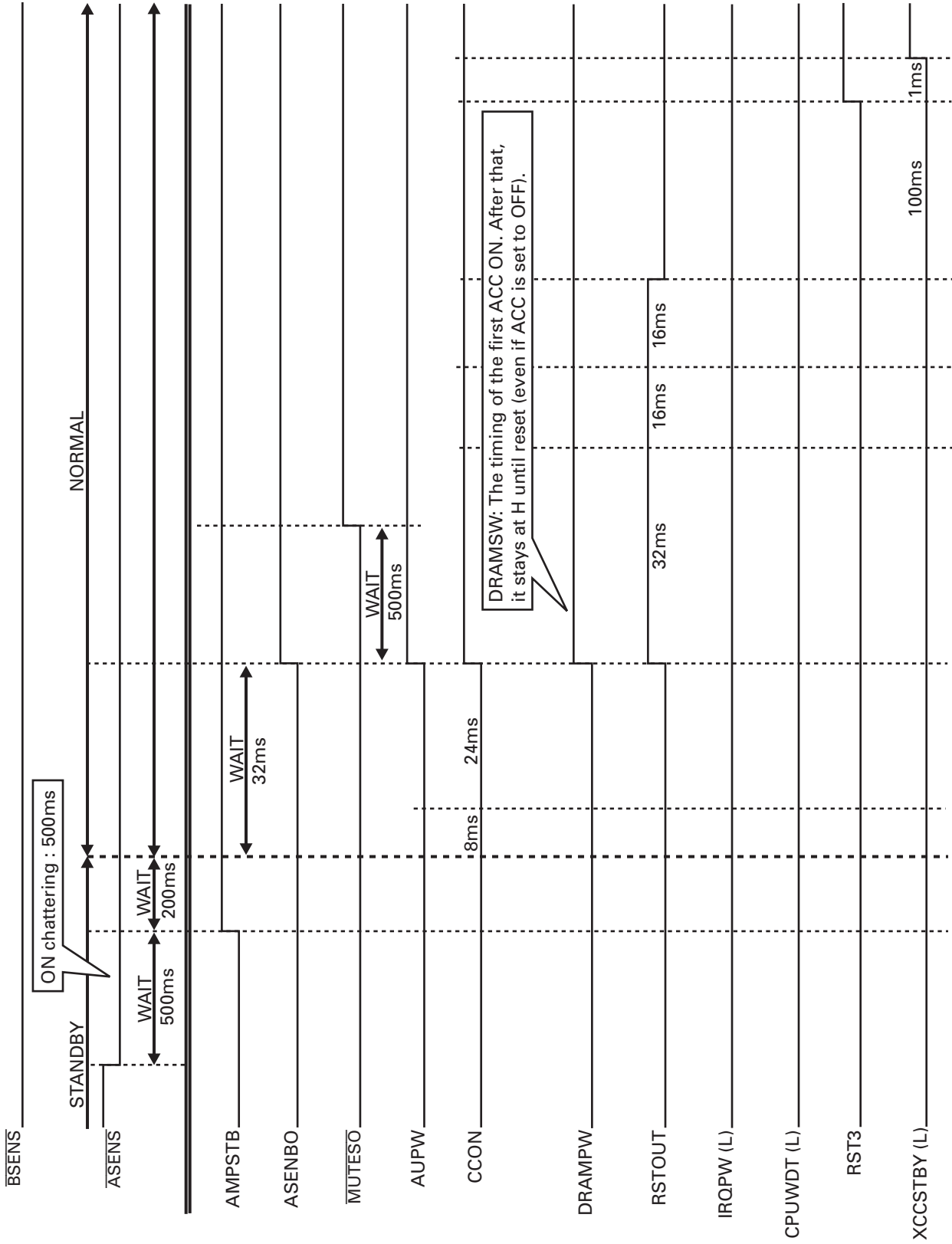






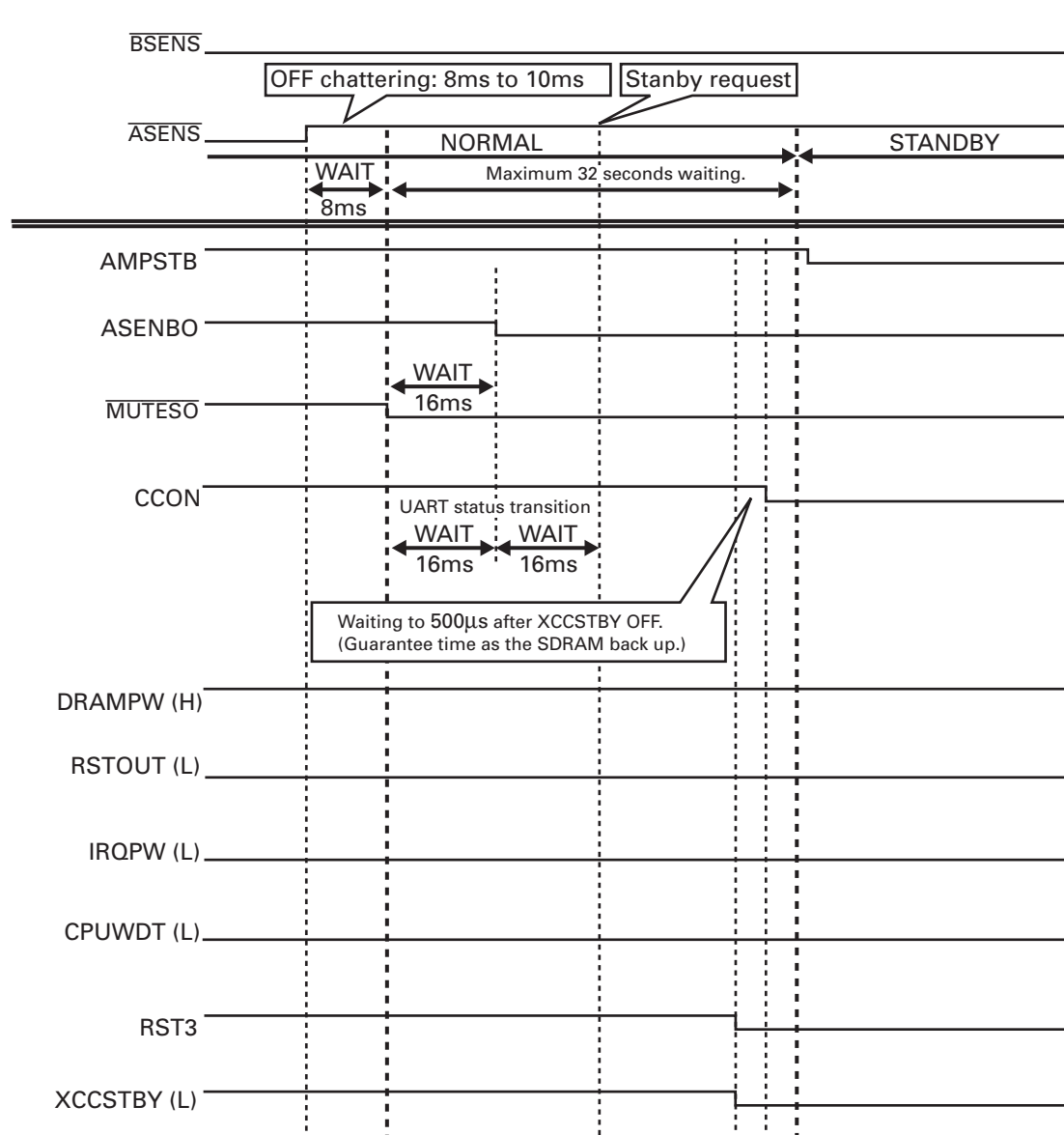
7.3.2 OPERATIONAL FLOW CHART

● Navigation Unit (1) (ACC ON)



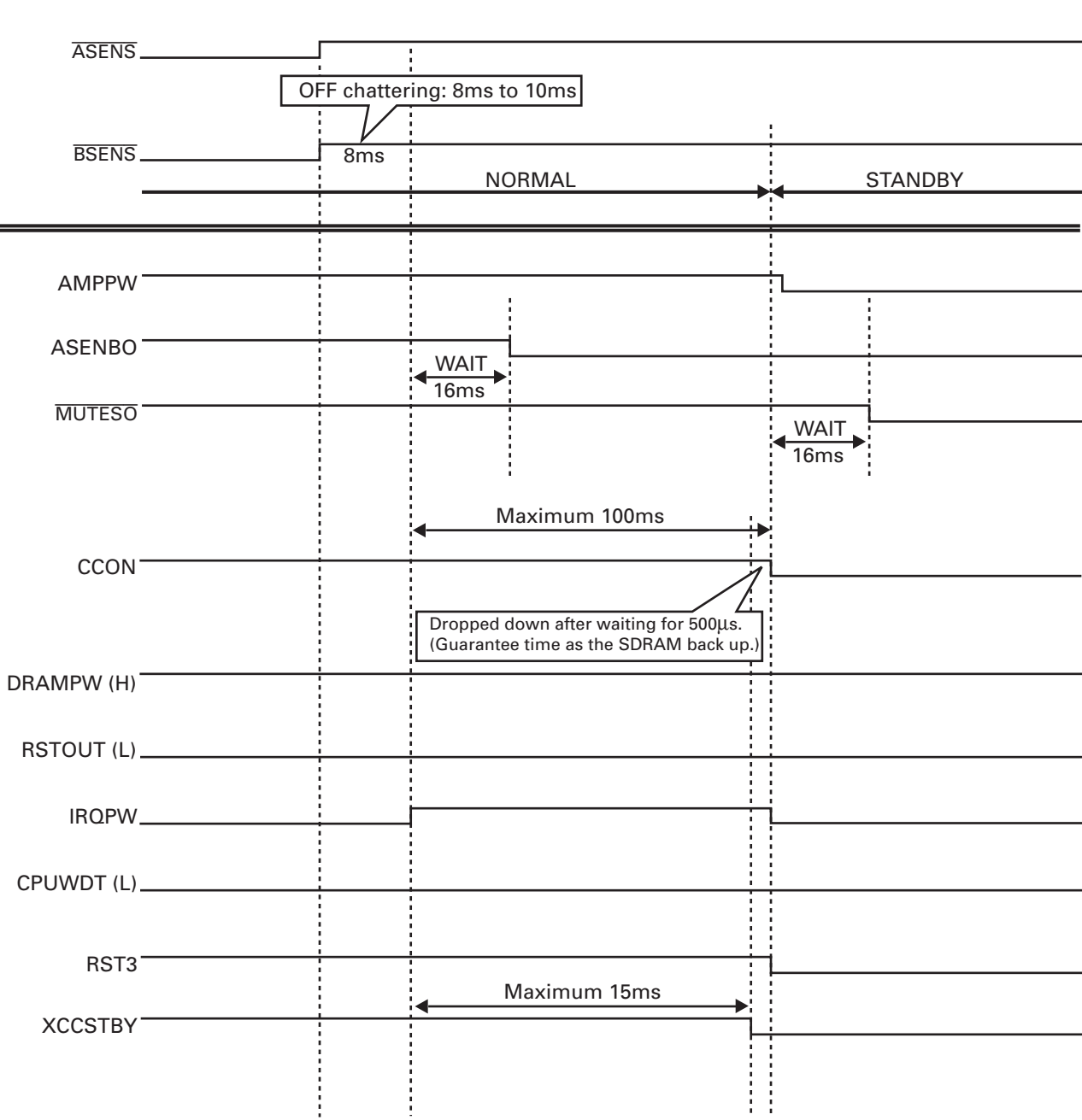


# ● Navigation Unit (2) (ACC OFF)



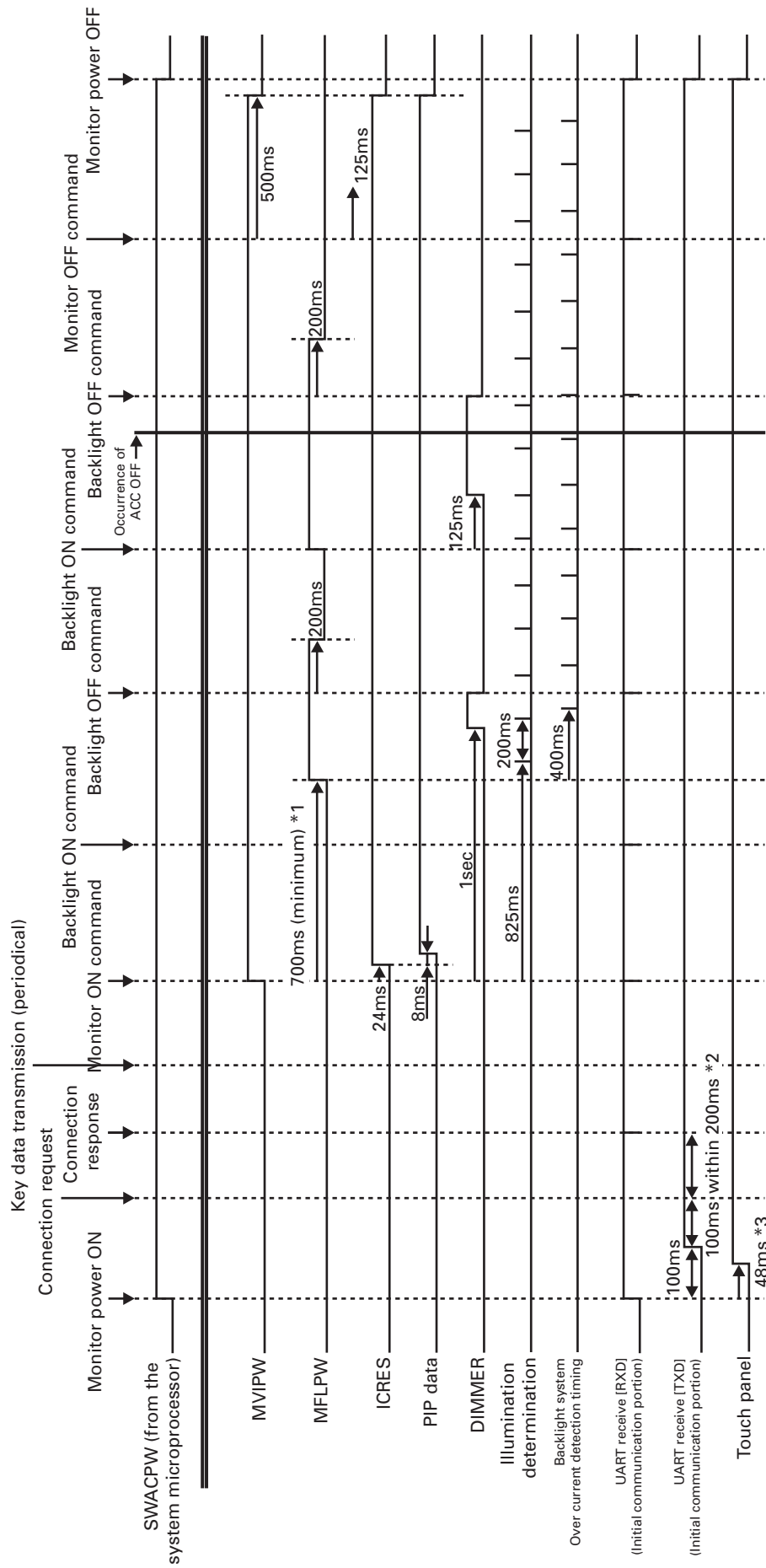


● Navigation Unit (3) (BUP OFF)





## ● Monitor Unit



\* 1 : While MFLPW will turn ON by the backlight ON command, it will not turn ON for at least 700ms after MVI PW ON.

\* 2 : In case connection response is not received from the system microprocessor within 200ms from the transmission of connection request, retry process will take place. Retry process will take place for 200ms x 16 times. In case the retry process is finished without receiving the request signal, the initial communication is determined to be NG (connection NG), and no more process will take place.

\* 3 : After 48 ms from the monitor power ON, the touch panel process (taking in AD coordinate) will take place.



## 7.4 CLEANING



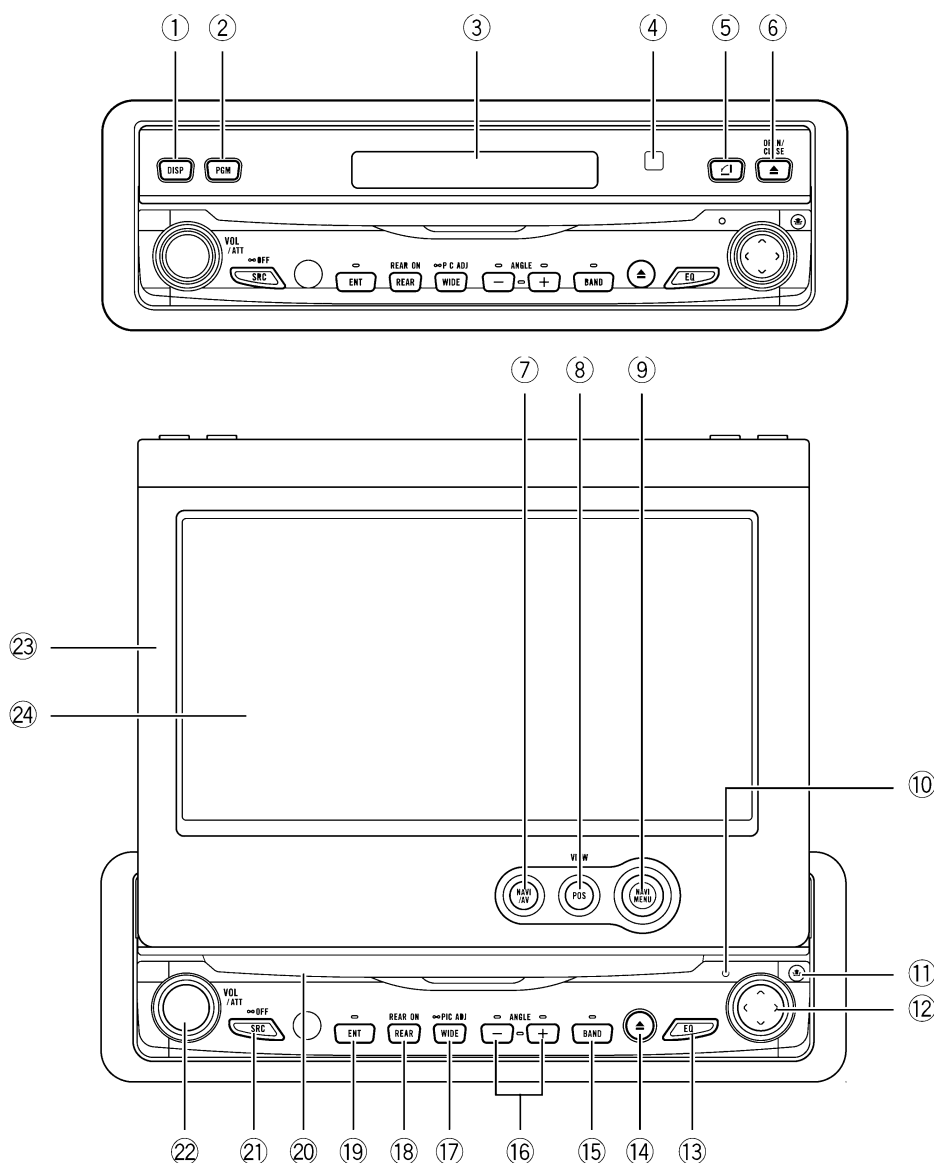
Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
DVD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

Portions to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008



## 8. OPERATIONS



### (1) DISP button

Press to select different displays.

### (2) PGM button (AVIC-N1/UC)

Press to operate the preprogrammed functions for each source.

### (2) TA/NEWS button (AVIC-X1/EW)

Press to turn traffic announcements function on or off. Press and hold to turn NEWS function on or off.

### (3) Sub display

Current time or the information of the audio source currently playing is displayed when the LCD panel is closed.

### (4) Ambient light sensor

Senses ambient light. This system automatically adjusts the brightness of the display to compensate for ambient light.

### (5) FLIP DOWN/CLOCK button

Press to turn the LCD panel horizontal temporarily when the LCD panel is upright. Press to turn the clock of the sub display on or off when the LCD panel is closed.



**(6) OPEN/CLOSE button**

Press to open or close the LCD panel.

**(7) NAVI/AV button**

Use to switch between Navigation map displays and audio operation displays.

**(8) POS button**

Press to view the map or return to guidance. Also, when the map is scrolling, pressing this button returns you to the display of the map of your surroundings. Use to switch the view mode of the navigation when the map of your surroundings is displayed.

**(9) NAVI MENU button**

Press to display a menu of Navigation.

**(10) RESET button**

Press to return to the factory settings (initial settings).

**(11) DETACH button**

Press to remove the front panel from the display unit.

**(12) Joystick**

Move to do manual seek tuning, fast forward, reverse and track search controls. Push to display **A.MENU**.

**(13) EQ button**

Press to select various equalizer curves.

**(14) EJECT button**

Press to eject a disc from this unit.

**(15) BAND button****Radio:**

Press to select among three FM and one AM bands.

**Built-in DVD drive:**

When playing back a disc containing an MP3 file and audio data (CD-DA), pressing this button switches playback between the MP3 file and CD-DA. Touch and hold this button when a disc containing an MP3 file is inserted returns you to the root folder.

**(16) ANGLE (+/-) button**

Press to change the LCD panel angle.

**(17) WIDE button**

Press to select a desired mode for enlarging a 4:3 picture to a 16:9 one. Press and hold to enter the **PICTURE ADJUST** mode.

**(18) REAR button**

Press to output to the REAR OUT terminal the sound and images of a disc inserted in the built-in DVD drive that is different the currently selected source.

**(19) ENT button**

Press to switch between the background displays.

**(20) Disc loading slot**

Insert a disc to play.

**(21) SRC (SOURCE) button**

This unit is turned on by selecting a source. Press to cycle through all of the available sources. Press and hold to turn the source off.

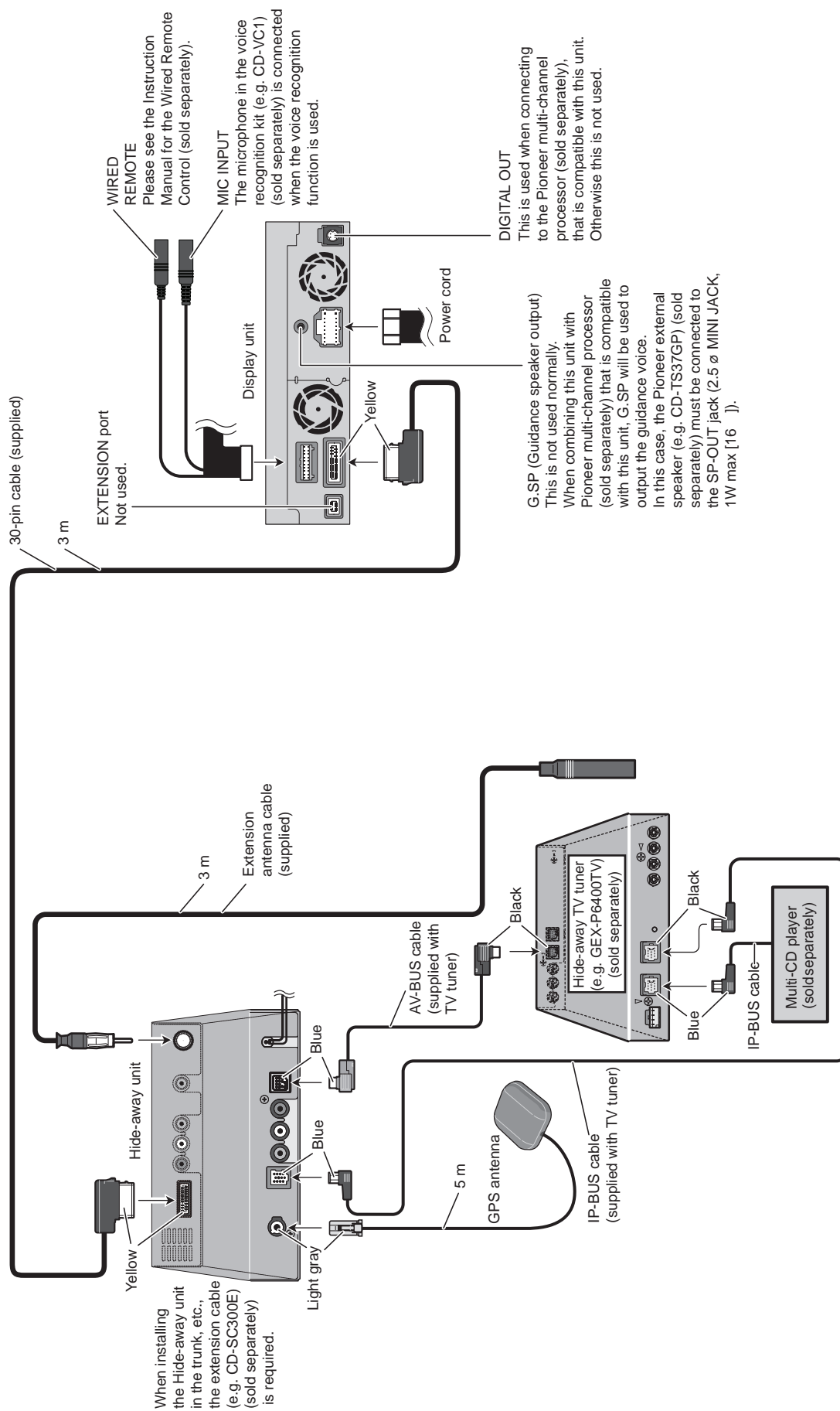
**(22) VOLUME/ATT button**

Rotate to increase or decrease the volume. Press to quickly lower the volume level, by about 90%. Press once more to return to the original volume level.

**(23) LCD panel****(24) LCD screen**

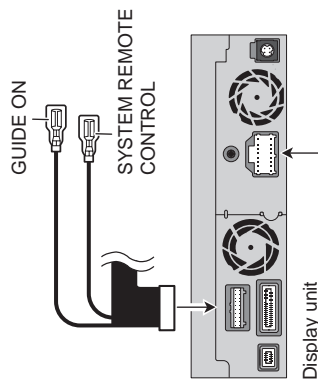


# ● CONNECTION DIAGRAM (AVIC-N1/UC)





**Note:**  
Cords for this product and those for other products may be different colors even if they have the same function. When connecting this product to another product, refer to the supplied manuals of both products and connect cords that have the same function.



Yellow/black  
If you use a cellular telephone, connect it via the Audio Mute lead on the cellular telephone. If not, keep the Audio Mute lead free of any connections.

**Note:**  
Audio source will be set to mute or attenuate, while the voice guidance of the navigation will not be muted or attenuated.

**Note:**  
When the auto antenna function is used by connecting the blue lead to the vehicle with the auto antenna function, either turning off the ignition switch or detaching the front panel will retract the auto antenna of the vehicle.

Blue  
To Auto-antenna relay control terminal (max. 300 mA 12 V DC).

Fuse holder

Yellow

To terminal always supplied with power regardless of ignition switch position.

Fuse resistor

Red

To electric terminal controlled by ignition switch (12 V DC) ON/OFF.

Fuse resistor

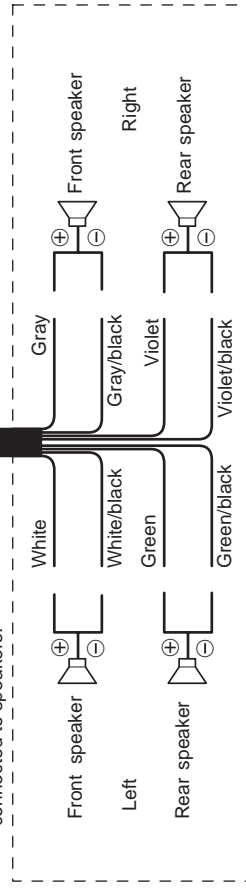
Orange/white

To lighting switch terminal.

Black (ground)

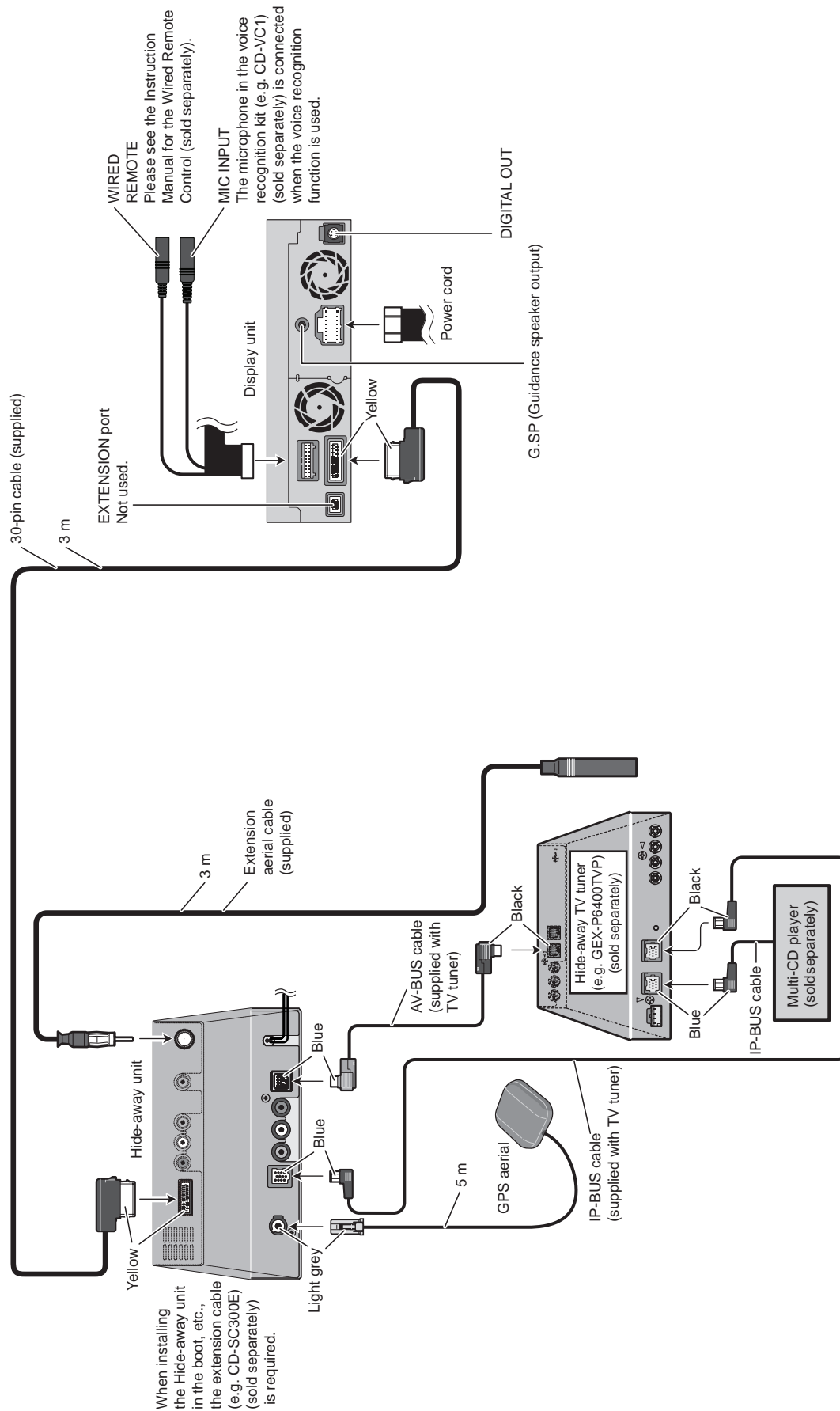
To vehicle (metal) body.

With a 2 speaker system, do not connect anything to the speaker leads that are not connected to speakers.





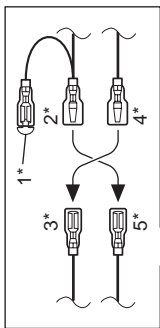
## ● CONNECTION DIAGRAM (AVIC-X1/EW)





**Note:**

Depending on the kind of vehicle, the function of 3\* and 5\* may be different. In this case, be sure to connect 2\* to 5\* and 4\* to 3\*.

**Cap (1\*)**

When not using this terminal, do not remove the cap.

Connect leads of the same colour to each other.

Fuse holder

Yellow (3\*)  
Back-up  
(or accessory)

Yellow (2\*)  
To terminal always supplied  
with power regardless of  
ignition switch position.

Red (5\*)  
Accessory  
(or back-up)

Red (4\*)  
To electric terminal controlled  
by ignition switch (12 V DC)  
ON/OFF.

Orange/white  
To lighting switch terminal.

Black (earth)  
To vehicle (metal) body.

**ISO connector****Note:**

In some vehicles, the ISO connector may be divided into two. In this case, be sure to connect to both connectors.

Speaker leads

White: Front left ⊕

White/black: Front left ⊖

Grey: Front right ⊕

Grey/black: Front right ⊖

Green: Rear left ⊕ or Subwoofer ⊕

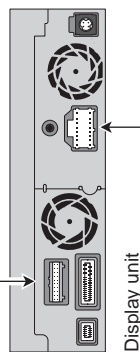
Green/black: Rear left ⊖ or Subwoofer ⊖

Violet: Rear right ⊕ or Subwoofer ⊕

Violet/black: Rear right ⊖ or Subwoofer ⊖

GUIDE ON

SYSTEM REMOTE  
CONTROL



Display unit

Yellow/black

If you use a cellular telephone, connect it via the Audio Mute lead on the cellular telephone. If not, keep the Audio Mute lead free of any connections.

**Note:**

Audio source will be set to mute or attenuate, while the voice guidance of the navigation will not be muted or attenuated.

**Note:**

When the auto aerial function is used by connecting the blue lead to the vehicle with the auto aerial function, either turning off the ignition switch or detaching the front panel will retract the auto aerial of the vehicle.

Blue (6\*)

Blue (7\*)

To Auto-aerial relay control terminal  
(max. 300 mA 12 V DC).

The pin position of the ISO connector will differ depending on the type of vehicle. Connect 6\* and 7\* when Pin 5 is an aerial control type. In other types of vehicle, never connect 6\* and 7\*.



## After Installing the Unit

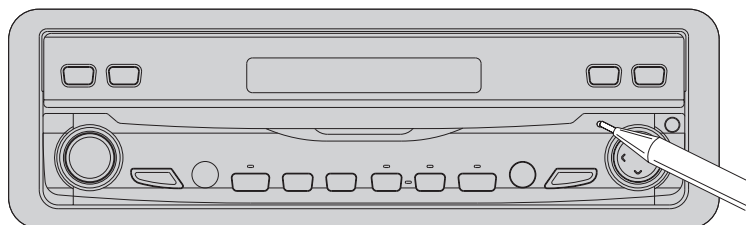
### 1. Reconnecting the battery.

First, double-check that all connections are correct and that the unit is installed correctly. Reassemble all vehicle components that you previously removed. Then reconnect the negative (—) cable to the negative (—) terminal of the battery.

### 2. Start the engine.

### 3. Press the RESET button on the display unit.

Press the RESET button on the display unit using a pointed object such as the tip of a pen.



### 4. Enter the following settings:

- ¥ Install the programme in the navigation system.
- ¥ Drive until the initialized sensors start operating normally.
- ¥ Set the time and language.

#### Note:

If you reconnected the Hide-away unit, press the RESET button.

After installing the unit, be sure to check at a safe place that the vehicle is performing normally.



■

5

■

6

■

7

■

8

■

A

B

C

D

E

F

■

5

■

6

■

7

■

8

■



# ● JIG's List

Function	Name	Jig No.
CC Unit (CN609) <--> Main Unit (CN3801)	PCB	GGF1461
CC Unit (CN609) <--> GGF1461	40P FFC	GGD1170
CC Unit (CN609) <--> GGF1461	20P FFC	GGD1209
CC Unit (CN608) <--> Monitor PCB (CN4002)	PCB	GGF1483
CC Unit (CN2701) <--> Panel PCB (CN5901)	18P FFC	GGD1208
Monitor PCB (CN4002) <--> GGF1483	36P FFC	GGD1366
Monitor Adjustment PCB	PCB	GGF1416
JIG connector Assy	PCB and FFC	GGF1463
Monitor PCB ("FOR SERVICE" 14P terminal) <--> GGF1463	14P FFC	GGD1323
TEST DISC (Operation check)	CD-ROM or DVD-ROM	GGV1137
DVD pickup lenses	CLEANING LIQUID	GEM1004
DVD pickup lenses and Fans	CLEANING PAPER	GED-008